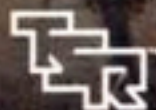


Official **Advanced Dungeons & Dragons**®

DUNGEONEER'S SURVIVAL GUIDE

by Douglas Niles

This essential sourcebook provides player and DM alike with innovative rules and settings for underground adventures.



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Contains all-new information on combat, mining, underground civilizations, and much more!

DUNGEONEER'S SURVIVAL GUIDE

by Douglas Niles



The sourcebook for AD&D® game adventures in the unknown depths of the Underdark!

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Special Thanks to

The efforts of many people have gone into *Dungeoneer's Survival Guide*. These people deserve to be commended for their vital contributions to this work. For any who may have been inadvertently overlooked, your efforts are greatly appreciated nonetheless.

To Harold Johnson, who oversaw the project and performed painfully meticulous reviews.

To Dave Sutherland, whose 3-D maps have truly added a new dimension to the underground.

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To Zeb Cook, for many an impromptu brainstorming session.

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To Bruce Heard, who spent time working the rules over.

And to Mary Elsbury Breault, whose editorial work enhanced the book and made its deadline possible.

Thank you!

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Introductions

It gives me a feeling of great satisfaction to complete this addition to the AD&D® game system. After many months of design and development, the project is finally nearing the end of the long production process.

Yet, in a sense, the work is just beginning. Many pairs of eyes have looked over these pages, but they represent only a fraction of those who will eventually read and use the material within. How you, the gamers, react to this material is the true beginning of the *Dungeoneer's Survival Guide*.

Exploring dungeons, caves, and caverns has always been my favorite part of the AD&D game. The number of subterranean monsters and cultures presented in the monster manuals serve as ample illustration of the importance of this environment to the game as a whole. Yet many questions have lingered regarding play in these regions of eternal darkness.

I welcomed the opportunity to answer some of these questions in an official volume. Rules on topics such as swimming, climbing, moving and fighting in narrow passages, and other categories of the underground game are included here. The area of nonweapon proficiencies, introduced in *Oriental Adventures*, is expanded here for use with your campaigns.

But these areas represent only a part of the scope of this guide. The nature of the vast realms below the surface of the world has

long been hinted at, but never really explained. Now the DM has at his fingertips a description of the domains of the subterranean cultures. The drow, duergar, derro, mind flayers, aboleth, and many other creatures live in uneasy harmony, often fighting among themselves, but united in their loathing of things from the sunlit world. The types of communities these beings live in are described for the DM's benefit. In addition, a sample of a specific underground world—the vast reaches of Deepearth—is presented for the DM to expand upon or use as a guide for his own campaign settings.

The ADVANCED DUNGEONS & DRAGONS® game system continues to be the most popular role-playing game in the world. As the RPG hobby evolves, it is only natural that the AD&D game system should continue to grow with it. The roots of the game lie deep within the earth, among the dungeons and realms where most of us got our first taste of fantasy role-playing. It is these roots that are attended to in this rule book.

Now, boldly brandishing a new collection of information and guidance, characters can once again enter the regions of the underearth, face the tremendous challenges there, and return with treasures and experiences from the finest sort of adventure gaming.

Read on, and have fun.



Douglas Niles
April 22, 1986

The weeks I have spent working on the *Dungeoneer's Survival Guide* have been hectic but enjoyable. I'm glad to have worked on a rule book that is going to be such a valuable and long-needed addition to the AD&D® game system. In fact, the DSG contains so many new rules and DM techniques that you may wonder how you ever went dungeoneering without it. And if you've given up on dungeon-crawling and subterranean adventures altogether, this is just the ticket to send you once again into the most exciting and dangerous setting for role playing excitement—the underearth.

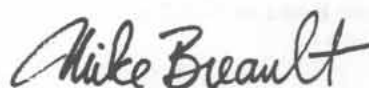
Both danger and opportunity await in the endless realms beneath the earth's surface. This rule book not only explains the details that make dungeons come alive, but covers the full gamut of natural and artificial underground formations.

Within these pages, the nonweapon proficiencies introduced in *Oriental Adventures* are greatly expanded to include underground adventuring skills. In the system introduced here, the

chance of success of proficiencies depends upon the character's ability scores, restoring ability scores to their originally intended preeminence.

Perhaps the most exciting feature of this book is its ability to revitalize your underground campaign. There are many ways to inject excitement and variety into subterranean adventuring; the tips and guidelines on campaign and world design presented in the *Dungeoneer's Survival Guide* will help you do just that. Advice on storytelling techniques will help the DM pique the players' interest even further.

To sum it up, I think you'll find this volume to be an invaluable reference. The rules and game mechanics detailed here, as well as the techniques of three-dimensional mapping, storytelling, campaign creation, and DM-player interaction can add new life and enthusiasm to every game. The *Dungeoneer's Survival Guide* is the source book for adventuring in the tractless realms of the Underdark. Don't leave the sunlit world without it!



Mike Breault
May 12, 1986



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DUNGEONEER'S SURVIVAL GUIDE: WHAT IS IT?

Most AD&D® game players began their gaming careers with a few hesitant steps into a dark dungeon somewhere in the myriad of gaming universes. Although later adventures took them through vast wildernesses and teeming cities, it is to dungeons that adventurers often long to return.

It seems that beneath the earth lurk the most fearsome (and thus, most exciting) foes, the most fabulous treasures, and the most mysterious locales.

Yet, after a time, many DMs run out of exciting ideas for dungeon adventures. The monsters all seem to lurch mechanically along in the same manner, and one 10-foot-wide corridor looks pretty much like the next one. Variety and challenge are often missing in these campaigns.

This book will change all that. Herein you will uncover vast realms and encounter underground cultures and dungeoneering mechanisms unlike any you have ever experienced.

The Mystery of the Underdark

All AD&D game players have had experience with stone dungeons carved by long-forgotten artisans. Many have ventured through subterranean caverns carved by rushing water or slow, grinding ice. Perhaps they have even sailed down an underground river or journeyed through a sulfurous labyrinth beneath an active volcano.

Within these pages, you will find descriptions of all of these underground settings, and more. Vast cities and advanced cultures await discovery; creatures live here whose eyes have never seen the light of day. How were these underground realms formed? Who controls them, and how? The answers to these questions and more await you in the realms of sunless mystery.

New Rules for Underground Play

The AD&D game system already provides rules for a great number of player actions, ranging from combat and movement to barter and negotiation. Many situations arise, however, that have not been addressed by the rules until now.

Can a character who is not a thief climb a rough stone wall? What if a PC, thief or not, has to fight a creature and cling to the wall at the same time? Or combat an opponent atop a swaying footbridge? Can your heavily laden character possibly jump that yawning chasm? All these unusual situations, and many more, are covered by rules introduced in *Dungeoneer's Survival Guide*.

How much use is a mule in a dungeon? And what about that river—is it possible to swim underwater to avoid the monstrous sentries you hear down the bank? Those shiny stones over there—are they worth anything? Read on for the answers!

Player character proficiencies were first introduced in the AD&D *Oriental Adventures* book. *Dungeoneer's Survival Guide* reintroduces those proficiencies and adds many more that are uniquely suited to adventuring in the dark regions of the underdark. With the addition of these proficiencies, a whole new area of adventure can be added to the AD&D game.

An assortment of new rules beckon—rules to make the underground reaches as wide open for adventuring as the forest or

meadow that surrounds your characters' home village.

The Denizens of the Underdark

The underdark—the region of caverns and realms beneath even the deepest of dungeons—is teeming with life. Many cultures have been there for as long as life has existed in the sunny reaches above. Other races have been driven there by violent conflict with kindred races of the surface.

Where do these races live? How do they interact with each other and with outsiders? What do they have to offer a group of adventurers from the surface? Creatures such as the drow, duergar, kuo-toa, and myconids are revealed in their natural environments—environments virtually unknown to even the most experienced adventurers from the surface.

The histories of these fabled races are also treated briefly, as a reference for the Dungeon Master. Many adventures can be drawn from these histories, providing a wealth of conflicts and challenges for many gaming sessions to come. There are also detailed random location and encounter generators, allowing for exciting adventuring with little or no preparation time.

The Underground Campaign

The DM receives a great deal of attention in the latter half of this volume. A section is devoted to the intricacies of the underground campaign, and is full of suggestions for designing adventures to challenge (and perhaps throw a scare into) your players.

Map making is addressed in some detail, with guidelines for creating realistic three-dimensional portrayals of many different levels of dungeons, caverns, and castles. Advice on how to stock your underworld with logical and appropriate creatures is also given.

Maintaining a strong, highly motivating story element is an important part of a DM's job, and this is covered within these pages. Suggested conflicts, always the first step in a powerful story, are presented along with comments on generating your own.

The ultimate random element of any game is the players. How do you handle players who always try to do the exact opposite of what you want? What if your campaign has gotten out of hand because of too much treasure or powerful magic in the hands of the PCs before they're ready to handle it? Must such a campaign be discontinued, or are there ways to salvage it? These topics are all covered in this tome.

Using This Information

The first section of this book includes information for player and DM alike. This mainly consists of the expanded rules for underground play, spells, character proficiencies, and new items of equipment that come in handy during adventures underground.

The latter portion of the book contains information tailored to the DM's needs. Here are listed the cultures, creatures, and treasures of the underground, together with the pertinent notes on how to play them. Players should avoid this Forbidden Territory, or face the wrath of the DM.

OVERVIEW OF THE UNDERDARK

Although one type of underground environment might seem to be pretty much like another, especially when a character cannot see his nose in front of his face, a wide variety of locations await the character willing to explore his surroundings and press on into deeper and uncharted passageways.

The most significant and fundamental differences between underground locations are due to their origins. Were they created by natural geological forces such as erosion, earthquakes, or volcanic eruptions? Or were they created by the efforts of creatures, intelligent or unintelligent, to serve their needs?

Natural Underground Locales

Caves and caverns have been created by natural forces and have appropriate characteristics. Often such locations serve as starting points for dungeon settings.

Three types of caves are commonly encountered: limestone caves, sea caves, and lava caves.

Limestone caves are by far the most common type. Obviously they are mostly found in areas where the bedrock consists of a great shelf of limestone. However, dolomite and marble terrain can also serve as an environment for the creation of a limestone cave.

A limestone cave is created by the erosive and corrosive action of water seeping through the rock. Rainwater in particular aids in the creation of a limestone cave, since the carbon dioxide absorbed from the air helps to make rainwater a dilute form of carbonic acid—a fluid that quickly eats away limestone.

As the water seeps through the earth, gradually widening its passageways, the limestone cave grows. Shifts in the water table, caused by drought, floods, or gradual movement of terrain features, can increase or decrease the flow of water through the cave. If the water table drops, formerly underwater passages are left dry and full of air, creating a cave like those that have sheltered creatures since the beginning of time.

Such caves can often be entered through the inlets or outlets of the water that once flowed through them. Although often tortuously narrow or steep, such openings are the most common entrances to limestone caves.

A cave that grows too large may not be able to support the expanse of rock above it, and the ceiling may collapse to form a sinkhole. Such a feature drops precipitously from the surface to the floor of the cave, but can be used as an entrance for characters willing to do a little rope work.

When the water has drained from a limestone cave, it is not uncommon for seepage or even small streams to continue to trickle through it. It is the seeping of small trickles of water that creates many of the spectacular underground rock formations that are familiar to those who have ventured into caves.

The most commonly known cave features are stony pillars known as stalactites (hanging from the ceiling) and stalagmites (growing upward from the floor). As with other cave features, they are created by the slow dripping of water, which evaporates and leaves behind small deposits of minerals. Depending on the types of minerals left behind, these cave features can range in color from a muddy brown to red, or even (in rare cases) a pure crystalline white.

Other types of cave features include draperies, flowstone, and gypsum flowers. Draperies (also referred to as curtains) occur where evaporating water has left a sheet of stone that resembles a ruffled curtain. Flowstone often falls in a series of tiers and resembles flowing sludge. Gypsum flowers are rare and delicate little structures that can be extremely beautiful.

If a cave is subject to continuing water seepage, it is considered a living cave, and these features are slowly growing throughout it. In fact, it is not unheard of for a cave's features to grow so much that they literally fill in the cave that the same process (of dripping and running water) created in the first place.

Features in a living cave glisten and shine when light is cast upon them. They are also very sturdy. Although occasional areas of rubble might obstruct passage, such caves are generally very clean and almost dust-free. Of course, this is before the cave is entered or used by creatures from the outside world or exposed to air from the surface.

Mud is also a very common feature of a living cave. All low areas that are not regularly swept by flowing water contain pools of sticky mud. Depending on the drainage and shape of the area, these mud pools can be quite deep.

A dead cave, on the other hand, is one in which the water no longer flows. The features in a dead cave do not glisten, and in fact grow very weak without the constant humidity to reinforce them. Left without water long enough, a cave's features become very brittle and eventually crumble into dust.

A dead cave is much more likely to be choked with rubble than its living counterpart. A layer of dust often covers everything. If water can be found, it has generally been standing in a pool for centuries. Even so, the water found in such locations is very rarely stagnant—the cold temperatures and lack of sunlight see to that.

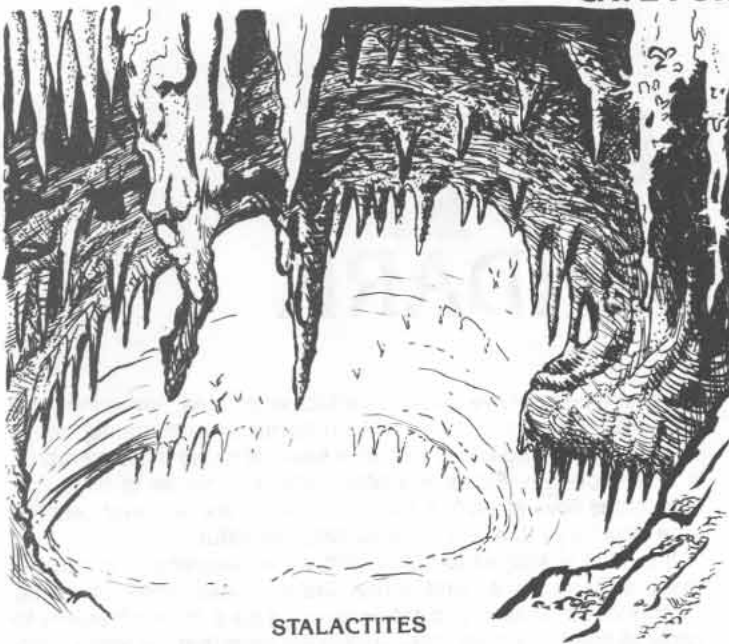
Some limestone caves are completely filled with water. These caves do not have the features described above, unless those features were created when the cave was filled with air, and it has subsequently filled with water. In general, the passages in a water-filled cave are smooth and rubble-free. Nonetheless, the water may flow through very narrow openings or tightly winding passages, making it difficult or impossible for a character to travel through.

Sea caves are formed along current or former coastlines where the erosive action of pounding surf gradually wears an entrance into the bedrock. They are generally much smaller than limestone caves, since the waves disperse their energy quickly as they work their way inward.

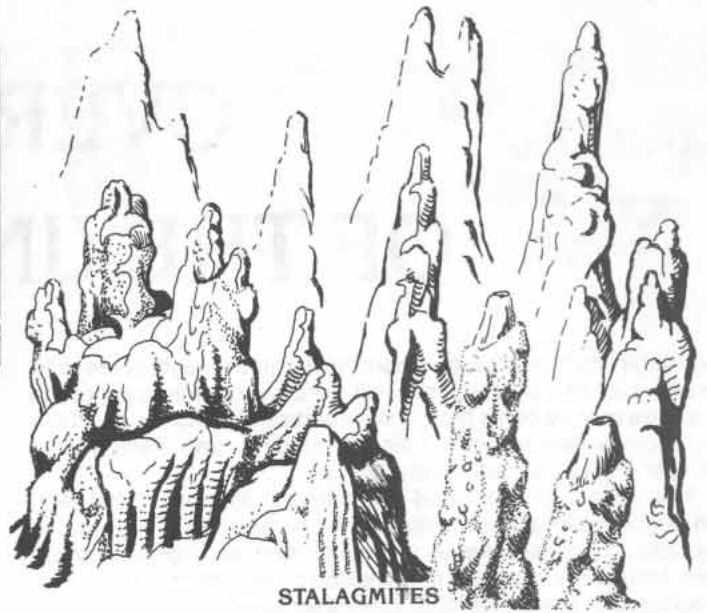
Sea caves are often partially water-filled. Depending on the changing level of the water, a sea cave might even be completely submerged, its mouth hidden to all observers who are not themselves submerged. On the other hand, if the water level has fallen or the ground has risen, a sea cave might be discovered in a cliff far above the pounding surf, or even many miles inland if the coast has gradually moved farther out to sea.

Sea caves have smooth floors, walls, and ceilings, with none of the spectacular features of their limestone cousins. On the other hand, their often relatively easy access makes them more likely to contain some relic of long-past inhabitants.

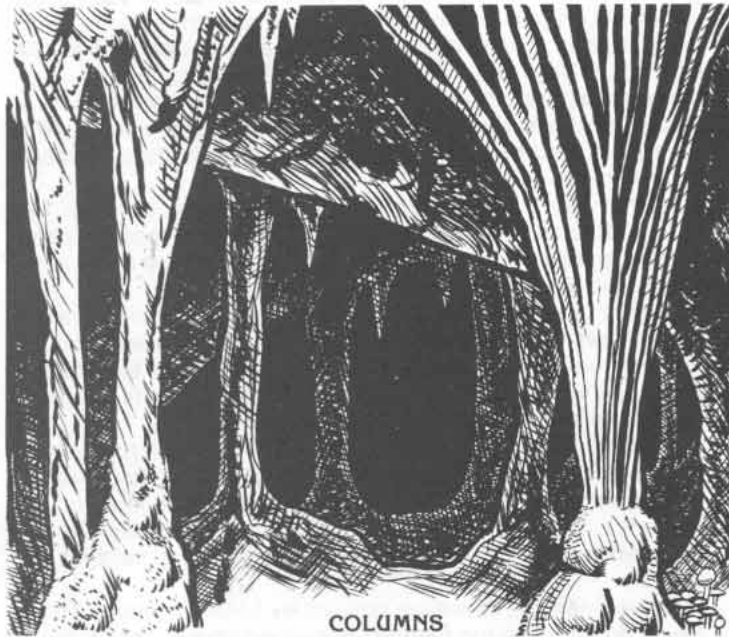
CAVE FORMATIONS



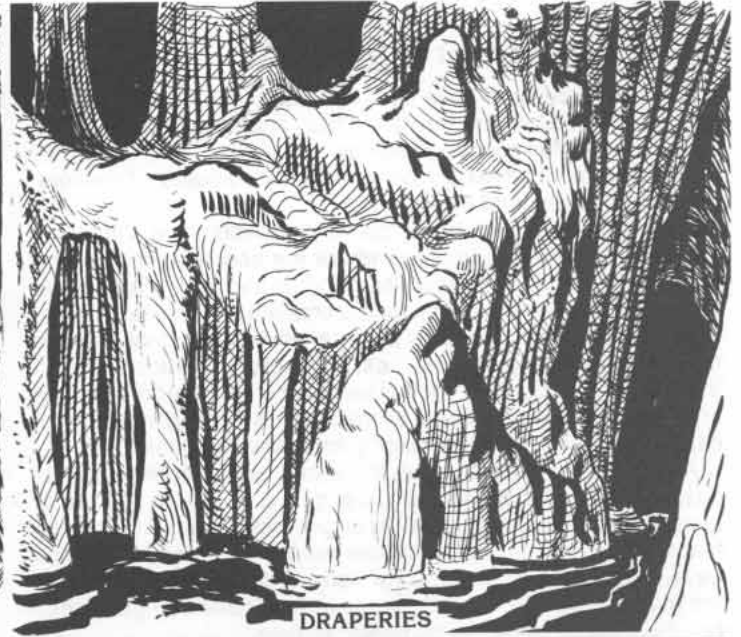
STALACTITES



STALAGMITES



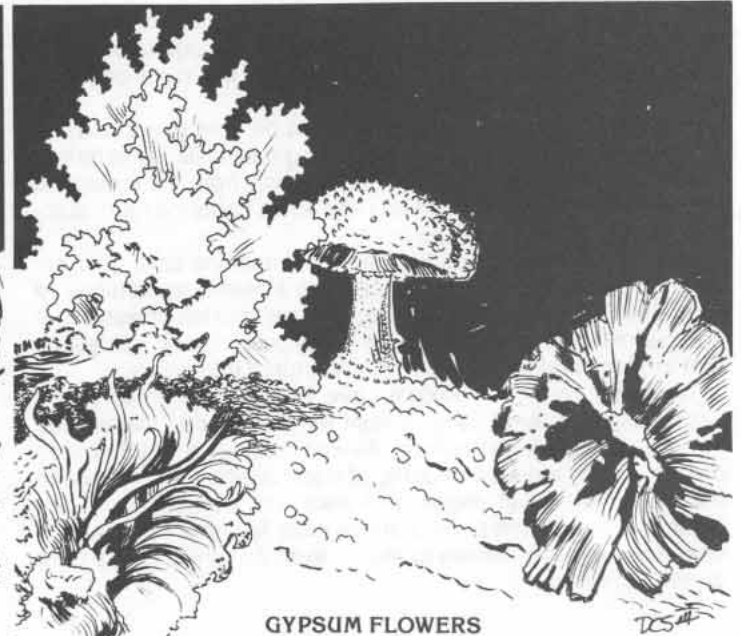
COLUMNS



DRAPERIES



FLOWSTONE



GYPSUM FLOWERS

When a river flows around a bend, the abrasion of water against the outer riverbank might erode a space that eventually becomes fairly large. Such caverns resemble sea caves in most respects.

Lava caves are created when the crust of a flowing surface of lava hardens, but the molten lava beneath the crust continues to flow. If the conditions are right, the lava flows away to leave an air-filled space that may reach a considerable size.

Lava caves are commonly found in areas of volcanic activity. They do not contain the features typical of limestone caves. Unless the lava caves are in a region of heavy rainfall or are at a very low elevation, they may well be completely dry. In fact, because of their origins, a great many lava caves have no exits to the outside world. Their existence can only be discovered by chance excavation, or perhaps by accidentally breaking through the crust in an area where it is very thin.

Earthquakes and rockslides can occasionally create underground chambers that are tenuously supported by accumulated rubble. While these underground locations resemble caves, they are not true caves. Occasionally such a chamber may be large enough for a party of characters to enter, but rarely is there much to see. These locations, however, can make good overnight shelters and may also provide comfortable lairs for any number of potentially hostile animals or monsters.

Geological faulting can create cavities in the earth when a large shelf of rock moves and the neighboring rock remains stationary. Such caverns are often completely enclosed, but may be very large.

Geothermal heat is a feature that can be encountered in deep caves of any kind, although it is particularly likely in a lava cave, since the lava itself is a carrier of geothermal heat. Geothermal heat is simply heat energy originating from the unknown reaches deep under the crust of the earth.

This heat can be encountered by underground explorers in a number of ways. The most dramatic, perhaps, is the glowing crimson flow of molten lava. Such melted rock carries heat from the deepest reaches of the earth toward the surface, and retains (and radiates) its heat for a long time. Molten lava has a temperature of approximately 1,800° F, and quickly kills any non-fire resistant creature forced to come into contact with it.

Even in areas where the lava has cooled to a solid crust, it can still be blisteringly hot. A character foolish enough to venture onto such a crust runs the risk of breaking through into the infernal heat below.

Steam is another manifestation of geothermal heat that could be encountered by cave explorers. Although not nearly as hot as lava, steam can nonetheless scald or even kill a creature caught in its intense blast. Steam can arise suddenly in areas of high geothermal activity, whenever water happens to run into some area that is hot enough to quickly vaporize it. Such instant vaporization can create high steam pressures, and cause blasts of steam to erupt far from the actual source of the heat.

A more tolerable instance of geothermal heat is in the form of warm or hot water. Depending on the proximity and intensity of the heat source, the water temperature can range from lukewarm to boiling.

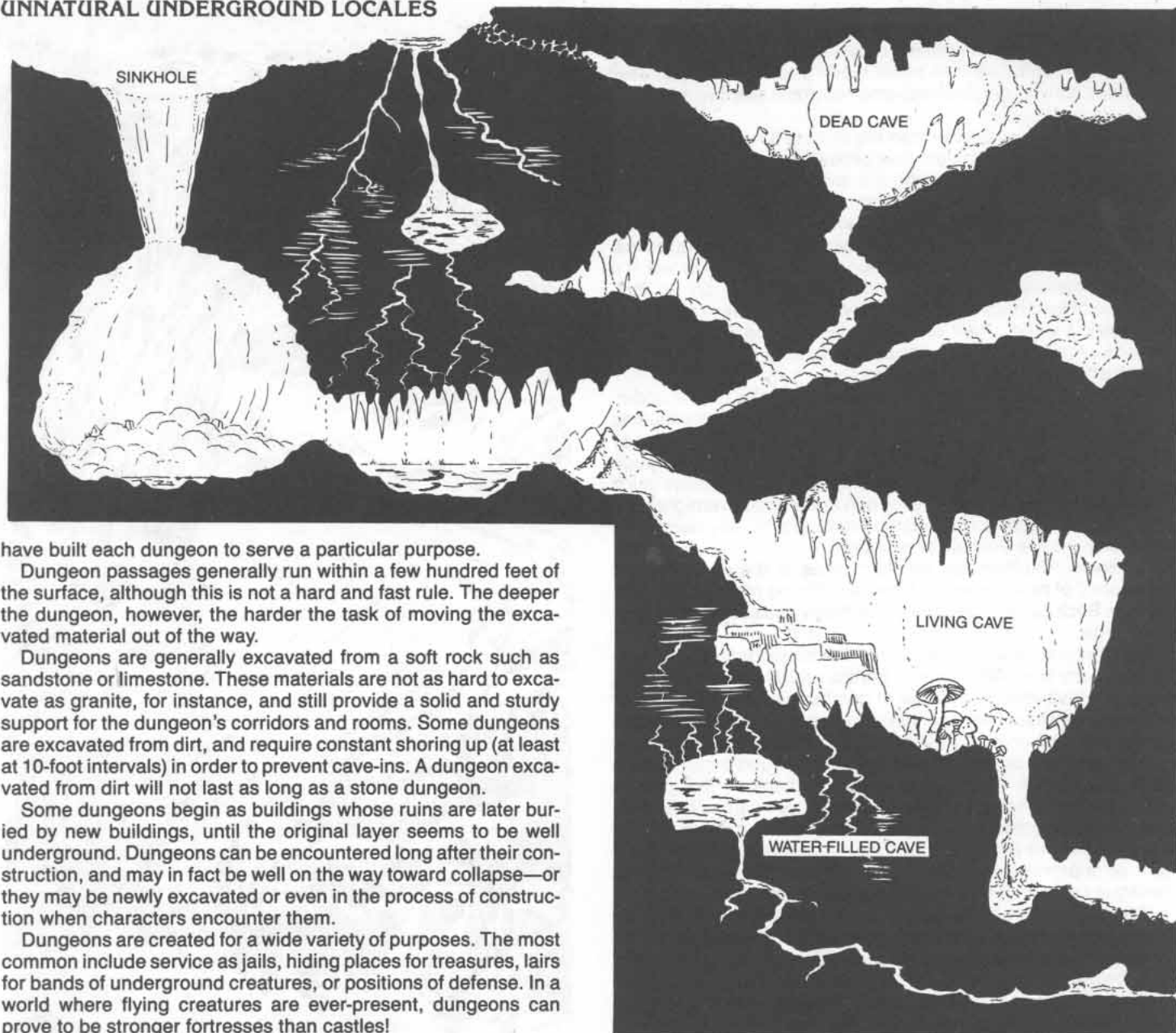
Warm or hot air rising through subterranean passages can often be an explorer's first warning that he is approaching a source of geothermal heat. This can actually be a pleasant experience, especially for characters well-chilled by a long expedition through dark and dank chambers.

Unnatural Underground Locales

Dungeons are familiar to nearly all adventurers. Some dungeons are constructed entirely from caves, while others use caves as entrances or emergency exits only. In any case, intelligent creatures



UNNATURAL UNDERGROUND LOCALES



have built each dungeon to serve a particular purpose.

Dungeon passages generally run within a few hundred feet of the surface, although this is not a hard and fast rule. The deeper the dungeon, however, the harder the task of moving the excavated material out of the way.

Dungeons are generally excavated from a soft rock such as sandstone or limestone. These materials are not as hard to excavate as granite, for instance, and still provide a solid and sturdy support for the dungeon's corridors and rooms. Some dungeons are excavated from dirt, and require constant shoring up (at least at 10-foot intervals) in order to prevent cave-ins. A dungeon excavated from dirt will not last as long as a stone dungeon.

Some dungeons begin as buildings whose ruins are later buried by new buildings, until the original layer seems to be well underground. Dungeons can be encountered long after their construction, and may in fact be well on the way toward collapse—or they may be newly excavated or even in the process of construction when characters encounter them.

Dungeons are created for a wide variety of purposes. The most common include service as jails, hiding places for treasures, lairs for bands of underground creatures, or positions of defense. In a world where flying creatures are ever-present, dungeons can prove to be stronger fortresses than castles!

Mines in a fantasy world are almost always tunnels or shafts. Some mines, particularly those developed over many centuries by diligent excavators such as dwarves or gnomes, can become complicated networks of tunnels extending through three dimensions and stretching for dozens of miles.

Mines can be either active or inactive, which indicates whether or not they are currently in use. The miners who created an inactive mine might have ceased their work because the vein of material they were excavating was depleted, but this is not necessarily so. Disasters or conflicts might have forced the operation to discontinue. Active mines are usually well-guarded, and inactive mines often become the lairs of subterranean monsters.

Burrows are generally long tunnels, perhaps with a widened spot at some point, created by creatures as shelters. Only very large burrows are big enough for characters to enter; unfortunately, very large burrows are usually created by very large creatures that do not always react kindly to the intrusion.

Burrows are generally excavated from dirt, but certain creatures (such as umber hulks) can create burrows in solid stone. A burrow is generally no bigger in diameter than the creature who created it, although a larger chamber is often excavated at the burrow's deepest end.

Realms are vast underground reaches made up of caverns, dungeons, and lofty passages of questionable origin deep beneath the earth. Realms are rarely found within a mile of the surface and often extend far deeper than this.

These realms are regions of mystery to most surface-dwelling creatures. Information about them is based on speculation or the few first-hand accounts of adventurers who have visited these underground realms and returned to tell the tale.

It is known that certain races, such as the drow elves, deep gnomes, duergar, kuo-toa, and derro, to name a few, live in vast underground reaches that never see the light of day. The true extent of such realms can only be guessed at.

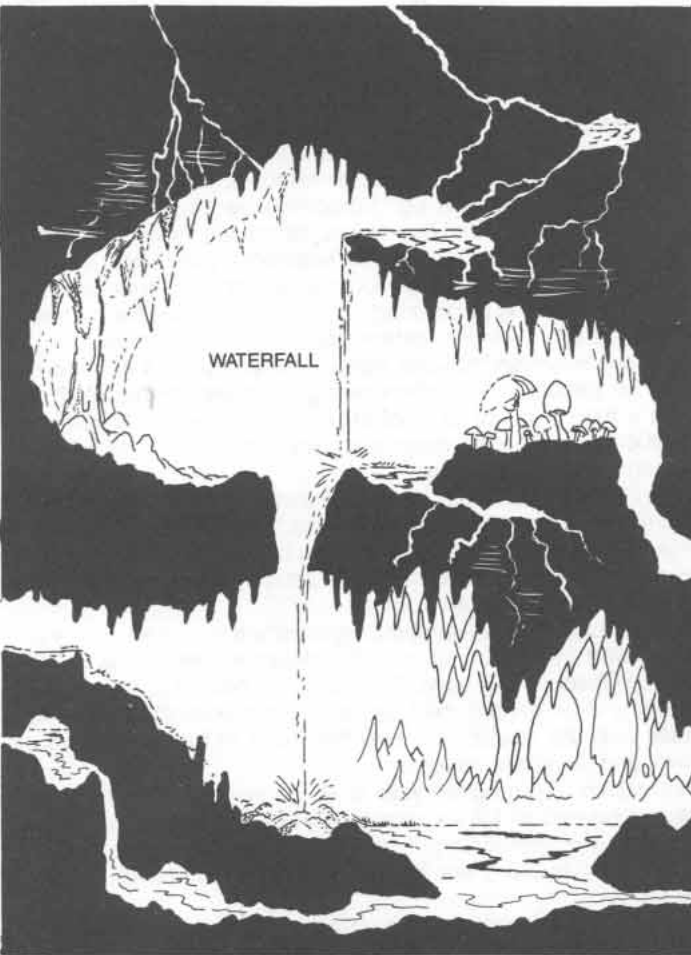
These realms contain vast networks of caverns that might rival an entire nation in size, and underground bodies of water as big as any outerworld sea. These seas contain islands just as surface

seas do. Certain of the vast realms could best be described as wilderness, for no cultures flourish there, while other areas boast cities and fortresses worthy of the most advanced civilizations.

Many of the creatures inhabiting these realms have been encountered by surface dwellers in the meeting-ground of the dungeon, for this is where the deep-dwellers and surface dwellers are most likely to encounter each other. Other creatures—horrific beasts that never even venture up to the level of the dungeons—are rumored to live in these underground realms, but no one living can attest to their existence.

Hazards of the Underearth

Dungeons, burrows, caves, and realms all share some com-



mon hazards that are created by their location under the surface of the earth. The following dangers are relatively rare, but each of them can be life-threatening to a character deep below the surface of the world.

Cave-ins are a constant problem to creatures living underneath tons of earth and rock. Cave-ins can be triggered by erosion, or by sudden shocks such as earthquakes or explosions.

Of course, characters or creatures directly underneath a section of dungeon or cave that caves in suffer damage from the material falling on them, and are often pinned by the weight of this material, or trapped in a small area with little air.

Dungeons are often protected against cave-ins by shoring up the passages with timbers or stone arches. Caverns do not have the benefit of such engineered protection, and realms are generally too vast for such protection to be practical. Because of their vast size and durability, the realms of the underearth are rarely subject to cave-ins. If a cave-in occurs in a realm, however, its

potential for disaster rivals that of the worst hurricane or tidal wave ever to ravage a surface land.

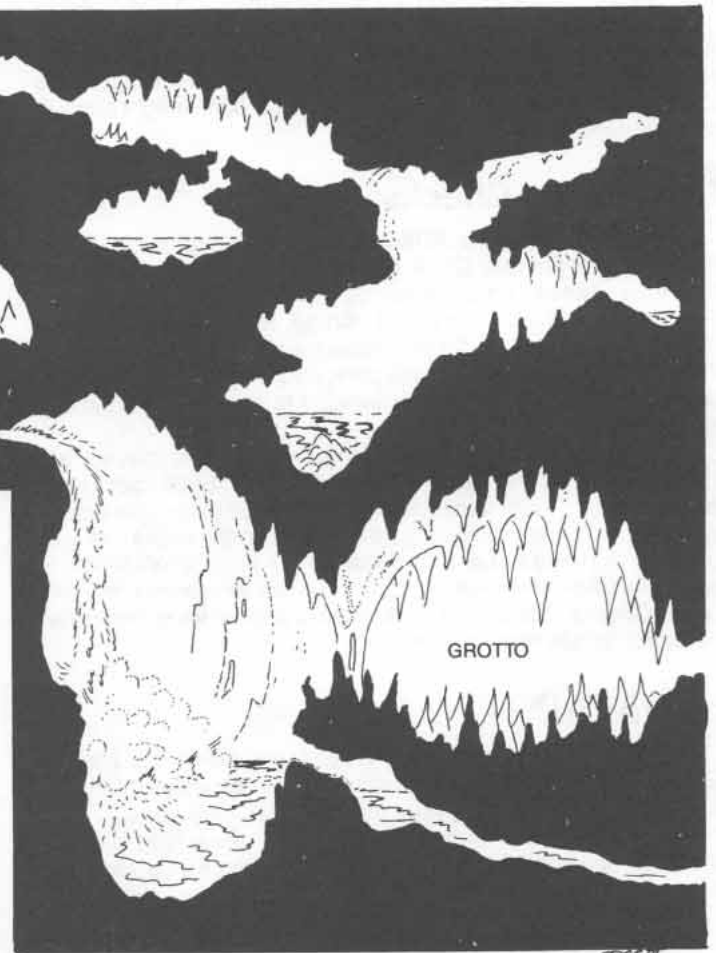
Floods are yet another natural phenomenon with potentially disastrous results. Because of the cramped nature of underground environments, flood water has little chance to spread out and disperse its effects. Indeed, underground corridors may well fill with water, making drowning a virtual certainty for any air-breathing creature caught there.

Fires threaten the well-being of underground dwellings in a double sense, for they consume combustible objects in their path, and also use up the precious oxygen that definitely exists in a finite supply.

Fortunately, at least for fire prevention, wood is not a very common building material underground. The difficulty of transporting wood into a dungeon and its tendency to rot in damp conditions both serve to discourage its use. Certain tasks, however, such as the shoring up of a corridor, are much more easily accomplished with wood than with stone.

Poisonous Gases present an unseen but real menace to all creatures that must rely on oxygen for life. These gases can be of natural origin, such as the sulfur dioxide commonly created around areas of volcanic activity, or can be of magical or manufactured origin. Obviously, the use of poison gas as a weapon of war is greatly enhanced in the constricted conditions of the underearth.

Volcanoes are a major cause of subterranean fires and poisonous gas emissions, as well as other problems. Often occurring in conjunction with earthquakes, a volcanic burst can fill inhabited corridors with lava or steam, or close off escape passages or popular transportation routes.



MOVEMENT RULES FOR UNDERGROUND PLAY

New movement rules in this section address several types of situations common to underground adventuring. Although these situations are not necessarily exclusive to underground adventures, they are all commonly encountered here, and these rules emphasize treating them in an underground environment. In the absence of other rules or exceptions, these rules can be applied to any similar situation encountered in an AD&D® game campaign at the discretion of the DM.

Ability Checks

On many occasions throughout these rules, characters will be called upon to roll *Ability Checks* against one or another of their seven attributes: Strength, Intelligence, Wisdom, Dexterity, Constitution, Charisma, and Comeliness. The check will be termed a Dexterity Check, Constitution Check, etc., as appropriate to the case at hand.

An Ability Check is rolled on 1d20. The check is successful if the roll is equal to or less than the ability in question.

For example, a character with a Strength of 12 is called upon to make a Strength Check. He rolls a 14 on the d20, so the check is unsuccessful and the attempted feat of Strength is a failure.

Occasionally an Ability Check calls for a certain number or combination of dice, as in a 4d6 Dexterity Check. In this case, substitute the listed dice for the d20. The purpose is still to roll the attribute score or less. Modifiers to the ability score might apply in some instances.

Proficiency Checks

In the tradition of the AD&D *Oriental Adventures* rules, the *Dungeoneer's Survival Guide* presents rules for nonweapon proficiencies. These proficiencies include areas of skill such as weapon-making, carpentry, and mining, that can augment the PC's adventuring skills. Proficiencies are also presented for such skills as climbing, fighting in the dark, and fire building. The latter categories can actually help a character to survive in the midst of an adventure.

In the cases of these adventuring proficiencies, players are often called upon to make *Proficiency Checks*. Such checks are made by rolling 1d20 and comparing the result to the character's rating in the given proficiency (rolls less than the rating are successful). Although the exact nature of each proficiency is described later, the following rules contain references to Proficiency Checks. Consult the section on proficiencies to determine the exact details in each case.

SWIMMING

Waves, underground lakes, and flooded dungeons all present serious problems to air-breathing creatures. Movement through these areas is covered by the following swimming rules.

Swimming rules cover two different skills: the length of time a character can hold his breath, and the character's ability to move through the water.

All of these rules assume that the character is using no magical assistance in the form of *potions of water breathing* or other such amenities. The effects of such devices, when they are used, always take precedence over a character's innate swimming abilities.

Holding One's Breath

If a character has a chance to take a large breath of air, and does not perform strenuous exercise while holding his breath, he can hold his breath for a number of rounds equal to 1/3 his Constitution Score, rounded up. Nonstrenuous exercise includes such activities as normal movement, searching for secret doors, trying to pick a lock, or other such activities. A character cannot be fully encumbered while performing any of these functions.

If the character is performing strenuous exercise, the number of rounds he can remain underwater is cut in half (rounded up). Strenuous exercise includes fighting, attempting to subdue or move an uncooperative character or creature, trying to lift or move a heavy weight, or moving at high speed. Fully encumbered characters underwater are always considered to be performing strenuous exercise.

If a character does not have a chance to take a deep breath before submerging, the amount of time he can remain underwater is halved (rounded up). This halving is cumulative with that for strenuous exercise. Note that a character is always able to hold his breath for at least one round.

A character does not immediately die when his breath runs out. Each round after his breath runs out, the character makes a Constitution Check to stay alive. The first check has no modifiers, but there is a -2 cumulative modifier each round thereafter. This continues until the character leaves the water or the player fails a check and the character dies.

Example: A character with a 16 Constitution can hold his breath underwater for six rounds. On the 7th round the player makes an unmodified Constitution Check; the 8th-round check is at -2, the 9th-round check is at -4, the 10th-round check is at -6, etc.

For players using samurai characters as defined in the *Oriental Adventures* rulebook, this system for holding breath can be used to augment the samurai's *ki* power. A samurai can elect to hold his breath according to the rules explained in *Oriental Adventures*, or he can use this procedure and add one round to the duration determined.

Holding Breath in Nonswimming Situations

In certain situations, characters might wish to hold their breath to avoid breathing the surrounding air. In order to calculate the duration of such an attempt, use the formula explained for swimming, but add one round.

Characters cannot use this ability to avoid the effects of a gas unless they suspect that a gas is about to be released. For example, if party members must make a saving throw, and some characters become paralyzed as a result, the other characters may decide to hold their breath to avoid breathing the threatening gas.

Moving in Water

Characters with swimming proficiency can perform many actions in the water. Characters without this proficiency are unable to remain afloat in water and drown in deep water unless they are aided. A character does not need swimming proficiency to be able to hold his breath, as explained above.

For humanoid monsters, assume a 1/3 chance that the creatures are able to swim.

Almost all animals can swim, if forced to. Wolves and other canines willingly follow prey into water, while most felines swim only in desperation. Certain creatures (fire- and stone-based monsters in particular) never enter the water.

The swimming ability is divided into three functions:

Endurance reflects how long a character can continue to swim without resting. This assumes that the character can breathe while swimming—i.e., is not swimming through a completely water-filled passage.

Speed reflects how many feet per round a character can travel in the water. If the character is swimming completely underwater, his speed is reduced to 2/3 of the maximum.

Diving determines how deep a character can go in a single round when he is already in the water. Obviously, the character must hold his breath or utilize magical aid in order to fully use this ability.

Encumbrance

Encumbrance is perhaps the most important factor in determining a character's success at swimming. The following table shows the effects of encumbrance on the categories of endurance, speed, and diving.

The encumbrance categories match those described in the *Players Handbook*, page 101.

Table 1: SWIMMING EFFECTS OF ENCUMBRANCE

Character's Encumbrance	Effects			
	Endurance	Speed	Diving	Surfacing
Unencumbered	Doubled	Doubled	Normal	Doubled
Normal Gear	Normal	Normal	Normal	Normal
Heavy Gear	Halved	Halved	Doubled	Halved
Very Hvy Gear	Quartered	Quartered	Tripled	Quartered
Encumbered *	None	None	Tripled	None

* An encumbered character cannot move through the water under his own power. If he enters the water, he will sink.

Endurance

A character's swimming endurance is calculated by adding the character's total experience levels to his Constitution score. This is the number of turns the character can swim without rest. Thus, a fighter/magic user of levels 6/5 with a CON score of 12 could swim 23 turns when carrying normal gear. If the character were completely unencumbered, he could swim for 46 turns!

A character who is only attempting to stay afloat by treading water doubles the number of turns of his swimming endurance. When a character runs out of endurance, he will drown unless he can get out of deep water or find some means of staying afloat.

A character can elect to swim at high speed, with the effect of doubling his swimming rate at a severe penalty to endurance. The endurance of a character swimming at high speed is reduced to 1/10 of its original value. In addition, immediately upon exiting the water, the character must spend as much time resting as he spent swimming at high speed.

Speed

The speed with which a character can swim begins at a base 4"/round for humans, and 3"/round for demihumans and humanoids. This speed is then modified as shown on Table 1. A character can elect to swim at high speed, doubling his rate of movement with the endurance penalty described above. In addition, a character's Strength bonus for damage can be added to his swimming speed. For example, a human character with a Strength of 16 has a damage bonus of +1, and thus could swim at 5" per round. This bonus can never exceed +3", even if the character's damage bonus is greater.

Diving and Surfacing

A character trying to retrieve an object underwater, or investigate something deep in the water, must use the diving function to get to the object and then must return to the surface.

A character can normally swim downward 20 feet in a game round. This depth can be modified by encumbrance, as explained above. The initial round of diving can be increased if the character uses momentum to carry him downward. A character jumping or diving into the water from a place within a few feet of the water's surface can add 10 feet to the depth achieved on the first round. For each 10 feet of height above the water surface, an additional 5 feet of depth can be added, to a maximum of a 40-foot-high jump.

The additions for diving into water are not modified by encumbrance, so a character jumping into the water can dive an extra 10 feet regardless of whether he is completely unencumbered or carrying heavy gear.

Diving Example: A group of characters wish to examine a glowing spot of light underneath the surface of a vast subterranean pool. Two characters jump into the water and immediately start downward. One of them is carrying heavy gear, while the other carries normal gear.

Each character gets a bonus of 10 feet in depth because he jumped into the water. The character with normal gear can swim the normal distance of 20 feet/round, thus achieving a depth of 30 feet after the first round. The heavily laden character can sink 60 additional feet after the jump, since his encumbrance triples his diving rate; thus, this character's depth is 70 feet after the first round.

The rate at which a character can surface from a dive is 20 feet per round with normal encumbrance. This is modified by unusual encumbrance as shown on Table 1 and assumes that the character is actively working to return to the surface. A character who is simply floating upward (an unconscious character, for example) moves five feet per round slower. A character who is encumbered with heavy gear or greater must actively swim for the surface or he does not rise at all.

A character can intentionally load himself down (with rocks, etc.) to aid a dive, and then release the added weight when he wants to surface. The DM must decide how heavily a character must load himself to reach a certain encumbrance category.

Armor and backpacks can also be used to weigh a character down, but these are much harder to release than a bag of rocks. It takes one round to remove a backpack under water, while removing armor usually takes several rounds. Subtract the Armor Class of the armor (not including magical bonuses or shield) from 10 to determine the rounds required to remove it while under water. For example, a sinking character in chain mail (AC 5) can remove the armor in five (10 - 5) rounds.

CLIMBING

Effects of Moving Water

It is important to remember that a character's swimming speed is relative to the water he occupies. A stream flowing 40 feet per round, for example, will carry swimming characters along at that speed, plus or minus characters' swimming speeds.

By swimming upstream at normal human swimming speed of 4"/round, a character could manage to stay in the same position, relative to the banks of the stream. Dwarves and halflings with normal swimming speeds of 3"/round will be washed downstream 10 feet in the sample stream above, even if they spend the entire round swimming upstream.

Extremely rapid streams can move characters with enough momentum to do them considerable harm. Of course, until the character hits something, the water might prove to be a fast and direct form of transportation. Obviously, submerged rocks and subterranean waterfalls can change this impression quickly.

A character carried over a waterfall receives *half* the normal amount of damage for the distance of the fall, except that a saving throw vs. breath weapon is allowed. If the save is successful, the character manages to avoid the most damaging obstacles as follows: If the fall is 100 feet or less, the character receives no damage from the plunge. If the drop is greater than 100 feet, the character only receives 1/10 the normal damage for such a fall.

Rapid streams full of submerged rocks pose a special threat to characters in the water. The DM should rate the danger of such a stream with a number from one to 10, one being the most dangerous. The stream's danger rating tells how often a character must make a swimming Proficiency Check. The time between saving throws (in rounds) equals the stream's danger rating. Thus, a stream with a rating of one requires a saving throw every round, whereas one rated four only requires the check every four rounds. Whenever a character fails such a check, the pounding against the rocks causes 1d6 points of damage.

The danger rating of a stream should be based on factors such as the speed of the water, its depth (shallower being more dangerous), the number of obstacles in the stream bed, and the amount of light available to see the obstacles. In a stream rated five or less, characters must swim at high speed.

CLIMBING

Characters who spend much time exploring the unknown reaches below the earth's surface are sure to encounter many situations requiring climbing skills. Natural caves and caverns are commonly filled with many passages blocked by cliffs or sheer drop-offs. While other characters cannot approach the efficiency of thieves at climbing, members of all character classes have a limited ability to move up and down steep slopes, provided hand and footholds are available. Only thieves have the capability to ascend sheer walls, cliffs, and the like. Other characters may try to climb very rough stone surfaces, as well as trees, poles, ropes, and other simple routes. The mountaineering proficiency can increase these abilities for both thieves and non-thieves.

Climbing Surfaces

Four types of wall surfaces are listed on page 19 of the *DMG*. In addition to these categories (very smooth, smooth with cracks, rough, and rough with ledges), the following types of surfaces can be climbed:

Sloping wall (40-55 degree slant)
Straight tree/pole/rope
Tree with branches
Rope and wall
Ice wall

Walls that are very smooth, smooth with cracks, or rough can only be climbed by thieves, unless characters are using ropes, spikes, or other tools. Ice walls can only be climbed by characters (including thieves) using tools.

Rates of Climbing

The rate of a character's movement when climbing on a slanted surface depends on the type of surface, the condition of the surface, the character's class, and the character's level of encumbrance.

The following table shows the rates (in feet/round) at which characters can move up, down, or across various surfaces. Note that the condition of the surface being climbed greatly influences the speed of movement.

Table 2: RATES OF CLIMBING

Surface Climbed	Condition of Surface		
	Nonslippery	Slightly slippery	Slippery
Very smooth •	6 ft/r	3 ft/r	0 ft/r
Smooth, cracked •	12 ft/r	6 ft/r	3 ft/r
Rough *	18 ft/r	9 ft/r	6 ft/r
Rough, ledges	24 ft/r	12 ft/r	9 ft/r
Ice wall	—	—	6 ft/r
Pole	36 ft/r	24 ft/r	12 ft/r
Tree	60 ft/r	40 ft/r	20 ft/r
Sloping Wall	60 ft/r	30 ft/r	15 ft/r
Rope and Wall	40 ft/r	30 ft/r	20 ft/r

* These surfaces can be climbed only by thieves.

In all instances, the rates given are for thieves only. All other characters move at 1/2 the thief rates. All characters can add their Dexterity Reaction/Attacking adjustments to their rate of climbing.



Types of Surfaces

Very Smooth surfaces include faces of smooth, uncracked rock, wooden walls with no accessible cross beams or other handholds, and metal walls where individual plates of metal have been bolted together. Completely smooth walls, such as a single sheet of metal, cannot be climbed without tools.

Smooth but Cracked surfaces include most types of masonry, a typical cavern or dungeon wall, or a cliff that is not subject to a great deal of weather erosion. Castle walls, towers, and city walls that receive regular maintenance fall into this category.

Rough surfaces include most natural cliff faces, constructed walls that have not been maintained regularly, and most wooden walls or stockades. Any kind of masonry using natural stone instead of bricks or blocks will form a rough surface.

Rough with Ledges surfaces include hand- and footholds of three-inch width or larger, or provide some other kind of usable route. A cliff that has been steadily eroded by frost, or a chimney (a crack that a climber can follow up a slope, pushing off against each side with his hands and feet) will provide a rough surface with ledges. Also, stone buildings that are approaching a state of ruin often create this sort of climbing surface.

Ice Wall surfaces are sheer surfaces made mostly or entirely of ice. They are treacherous, and even thieves cannot climb ice without tools.

Pole surfaces include poles made of any materials, tall slender trees with few branches, and free-hanging ropes. A pole's diameter cannot be greater than 1/4 the height of the character attempting to climb it, unless the character uses a rope (see Climbing Tools). Any pole with tree bark still attached is considered a non-slippery surface. A rope only falls into this category if the character cannot brace his feet against a wall or some other surface to aid the climb.

Tree surfaces include any trees where branches are plentiful enough to provide handholds, or any constructed object of girders or a similar grid, such as scaffolding.

Rope and Wall surfaces include any situations where a character can climb up a rope and brace his feet against a wall or some other vertical surface as he climbs.

Sloping Wall surfaces represent areas that do not quite qualify as vertical, yet are too sloped to allow normal walking. Like all types of climbing, a character's chance of success assumes that he has both hands free. If a character falls while on a sloping wall surface, he can make a saving throw vs. petrification; if the save is successful, he takes no damage from the fall. Even if the save is unsuccessful, the fall only inflicts half of the normal damage.

Condition of Surface

Surface wall conditions refer to the degree of slipperiness that the wall presents to the climber.

Nonslippery surfaces are dry and solid. They do not crumble when touched, and a character's chance of falling is calculated at the normal rate.

Slightly Slippery surfaces are wet or crumbly. The chance of a character falling from a slippery surface is *twice* normal. For example, a 3d-level thief would make a normal *climb walls* roll at 87% (a 13% chance of failure). On a slippery surface, the thief has a 26% chance of failure, and needs a roll of 74 or less for success.

Slippery surfaces can be places where water runs regularly, or surfaces covered by slime or algae, or those coated by a thin layer of frost, ice, or grease. A thief character's chance of falling on a slippery surface is *ten times* his normal chance. Thus the 3d-level thief above cannot even attempt the climb; and a thief of 10th level only succeeds on a 90 or less instead of a 99.

Encumbrance

Encumbrance also plays a major role in the success of a character's climb.

Encumbered characters cannot climb sheer surfaces without the aid of tools.

Characters with **heavy gear** or **very heavy gear** move at 1/2 the movement rates listed for climbing characters. This halving is cumulative with all other effects.

Characters with **no gear** or **normal gear** can utilize the full climbing movement rates.

Climbing Success Rates for Non-Thieves

As might be expected, characters who have not trained for the task are not nearly as effective at scaling walls as are the dexterous members of the thief class. Non-thief characters have a base *Climbing Rating* of 40% and use the same procedure as thieves, but they have a lesser chance of success.

When a non-thief character begins a climb, he must make a successful *Climbing Check* roll on 1d100. This check is made against the character's Climbing Rating (with modifiers); a result greater than the modified Climbing Rating indicates failure, while a result less than or equal to the modified rating means success. (Thieves roll against their *climb walls* percentage for Climbing Checks.) The modifiers that affect a climber's chance of success are listed in the following section. These modifiers apply to all characters, including thieves.

If a Climbing Check fails, the character can never climb that wall. Even a failed attempt requires one round of game time.



CLIMBING

Climbing Modifiers

Naturally, certain aspects of a character and his possessions can affect the success of a climb. Possible modifiers are listed here:

Armor: Characters cannot climb in any type of plate mail armor, nor can a shield be held by a climbing character. Characters in chain, splint, scale, or banded armor can climb, but suffer a -15% penalty to their chance for success. Characters in studded leather or padded armor suffer a -5% to their chances. Leather armor does not penalize a climber. A character can sling a shield over his shoulder to carry it along while climbing; he cannot receive any defensive benefit for a shield thus carried.

Character Race: Certain character races receive modifiers to their climbing chances, as follows:

Character Race	Climbing Modifier
Dwarf	- 5%
Gnome	- 10%
Halfling	- 5%
Half-orc	+ 5%

Climbing Surfaces: Climbing surface modifiers apply to characters of all classes, including thieves. Characters receive bonuses to their chance to climb the following types of surfaces:

Climbing Surface	Climbing Modifier
Tree with Branches	+ 40%
Sloping Wall	+ 25%
Pole	+ 20%
Rope and Wall	+ 40%

Climbing Tools

Certain tools can be used to aid characters making a climb. Tools serve both to increase the chance of a climb's success and to decrease the chance of a character getting hurt in a fall. The disadvantage of tools is that they considerably lengthen the time needed to make a climb, and often make enough noise to attract unwanted attention. This noise is the main reason that tools are not commonly used by thieves in the pursuit of their usual missions.

Two types of tools, the grappling hook and the spike, or piton, can be used to aid a climb. Both must be used with a rope to have any effect.

Spike can be hammered into a wall surface and used to anchor a rope that subsequently protects a climbing character against falls. The character must have a hammer, and must spend 1d4 rounds pounding in a spike. The clanging of such activity can be heard up to a mile away in windless conditions.

The usual function of a spike is to shorten the distance that a character falls, should such an accident occur. If, for example, a character hammers in a spike 200 feet up the face of an underground cliff, and then connects a rope between himself and the spike, he has protected himself somewhat. If, 50 feet farther up, he loses his grip, he will only fall 100 feet (50 feet down to the spike, and another 50 feet to use up the slack in his rope).

Increasing the protection is the fact that any character whose fall is broken by a rope suffers only 1/2 the damage a fall of that distance would normally inflict.

Whenever a spike is called upon to arrest a fall, as in the above example, there is a 10% chance per character supported that it will give way. For example, if two characters are roped together and relying upon a spike to arrest their fall, the spike has a 20% chance of popping free. If the spike comes free, the characters fall the full distance to the ground (or twice the distance to the next spike). Characters can help prevent such accidents by using more than one spike.

Climbing an ice wall is a dangerous act that absolutely requires the use of spikes. In fact, a spike must be driven into the ice wall before a character can climb. This process must be repeated each round, and since it takes a round to drive a spike, the process is doubly slow.

In addition, spikes placed in ice have a 15% chance of pulling free per character whose weight suddenly pulls against it.

Ropes are discussed as climbing tools in combination with spikes and grappling hooks, but there is one situation where rope alone can serve a character as an effective climbing tool. This happens when a character wishes to climb a pole that is of too great a diameter for him to ascend unaided. In this case, the character can wrap the rope around the pole and pull against it as he climbs.

This technique can be used to climb a pole whose diameter equals the character's height. Any pole wider than this should be treated as a wall.

Grappling Hooks are relatively heavy iron tools with at least two, and usually three or four, separate hooks branching from the end. The hook is designed to be thrown, and to catch on protrusions and thus support a rope and climber.

A character can throw a grappling hook upward a distance equal to 1/3 of his Strength score (rounded up) times 10. A character with a Strength of 15, for example, could throw the hook up to a height of 50 feet. The horizontal distance that a grappling hook can be thrown equals the vertical distance, unless the character has enough room to swing the hook in a circle several times before the cast. In this case, if a character has a radius of 10 feet from his body cleared of obstacles, he can throw the hook twice as far horizontally as he could otherwise.

A character can throw a grappling hook once per round. If the cast is unsuccessful, it takes another 1d4 rounds to coil the rope and prepare the hook for another throw. If a character is directly underneath his target, and the dice roll on the throw is 01-05, the thrower is struck by the hook as it falls and suffers 1d6 of damage.

The chance of a grappling hook catching on its intended target depends upon the target at which it is thrown. For each throw, the DM rolls d100 and consults the following table:

Table 3: GRAPPLING SUCCESS

Grapple Target	Miss	Catch and Slip	Catch
Stone Parapet	01-72	73-78	79-00
Stone Wall Top	01-83	84-89	90-00
Tree Branches	01-66	67-70	71-00
Rocky Ledge	01-88	89-93	94-00
Wooden Wall	01-70	71-74	75-00

A catch and slip result means that the grapple seems to have caught solidly, as far as a character pulling on the rope can tell. In reality, the grapple will slip free after 1d6 rounds of supporting a load. Characters who pull on the rope for that many rounds are able to dislodge the hook, if they take the time to check.

A thrown grappling hook does not make as much noise as a hammered spike, but is not silent. A successful throw is audible for 100-400 yards in ideal conditions; an unsuccessful throw will raise a clang audible 200-800 yards away.

Rappelling

Rappelling is a means of hastily descending a sheer surface by means of a rope attached at the top. The character lets the rope wind around his body and uses the friction of the rope to slow his descent.

In order to rappel successfully, the character must make a successful Climbing Check with a +50% modifier. Failure means a fall from the top to the bottom of whatever distance is involved. A rappel can be made down a free-hanging rope, where the character has no wall to brace against, but in this case the modifier is only +30%.

A character can rappel up to 120 feet per round. All normal climbing restrictions apply (encumbrance, armor, etc.).

JUMPING FOR NON-ACROBATS

Underground obstacles such as chasms and pits are also frequently encountered by subterranean explorers. Occasionally, a repugnant monster such as a black pudding can be avoided if a character simply jumps over it.

Characters of all classes have a limited ability to jump across obstacles that get in the way. The procedure for all characters is the same as that given for acrobats on page 24 of *Unearthed Arcana*; to wit, a running broad jump requires a 20-foot head start, and all jumps require only one segment of time.

Unlike acrobats, however, other characters cannot attempt to jump backward or leap in an extended position.

Use the following table and jumping modifiers to determine the distance a character can jump.

Table 4: BROAD JUMPING

Level of Jumping Character	Standing Broad Jump	Running Broad Jump
1-6	1d4 + 1 ft	1d4 + 5 ft
7-9	1d4 + 2 ft	1d4 + 6 ft
10-12	1d6 + 2 ft	1d6 + 5 ft
13-15	1d6 + 3 ft	1d6 + 6 ft
16-18	1d6 + 4 ft	1d6 + 9 ft
19-22	1d6 + 5 ft	1d6 + 12 ft
23+	1d6 + 6 ft	1d6 + 15 ft

Jumping Modifiers

The following factors reduce the distance that a character can jump. In no case can modifiers shorten a jump to less than two feet.

Encumbrance: Unencumbered characters and characters carrying normal gear have no penalties to their jumping abilities. Characters carrying heavy gear subtract one foot from the distance of their jumps; characters with very heavy gear subtract two feet from their jumping distance, and encumbered characters subtract four feet.

Race: Humans, elves, and half-orcs suffer no racial penalty on a jump. Halflings must subtract one foot from their total distance, and dwarves and gnomes must subtract two feet.

USING ROPE

Crossing a Chasm on a Rope

Although a rope is a valuable tool for crossing obstacles in a party's path, a perennial problem always seems to arise: How to attach the rope to the far side?

A grappling hook is one means, as long as there are solid irregularities in the far surface that provide some purchase for the hook. Such irregularities are not common in a dungeon setting, but they are found more often in natural caves and caverns. If the crossing was once bridged, there will invariably be some wreckage of the bridge's foundation that can be caught with a grappling hook.

If a random determination is needed, there is a base chance of 50% that a given crossing has some sort of protrusion for a tossed grappling hook to catch on. As in climbing with a grapple, the DM should roll d100 and compare the number to the appropriate result:

Table 5: CROSSING WITH A GRAPPLE

Grapple Target	Miss	Catch and Slip	Catch
Bare Stone Walls/Floor	01-82	83-89	90-00
Cave Formations	01-75	76-80	81-00
Ruined Foundation	01-66	67-71	72-00

Other ways of attaching the rope include a player flying to the far side and attaching a rope for his companions, making a loop and attempting to lasso a protruding stalactite or post, or the popular but impractical rope-tied-to-the-arrow-which-is-embedded-in-something-trick. While dashing and romantic, an arrow trailing a rope and fired into some wooden material is simply not strong enough to support even the lightest of characters.

A thrown loop has better possibilities, but is a tricky maneuver that can only be attempted by thieves or other characters with a long and intimate familiarity with ropes (characters who were raised on farms, or who served as sailors, for example). Before such a throw can be attempted, a suitable target must be located. This is uncommon in a dungeon, but in a cave there is a base 20% chance that an appropriate stalagmite is located in a convenient position. The maximum range of a thrown loop is given in the following table and assumes the character has a clear radius of 10 feet around him to prepare the throw. The range is halved if this is not the case.

Table 6: THROWN LOOP RANGES

Character Level	Maximum Range (in feet)
1-4	40
5-8	50
9-12	60
13-16	75
17+	90

The basic chance to hit is 20% at maximum range. This chance is modified by +1% for each foot under maximum range. For example, a 7th-level character attempting to throw a loop over a stalagmite some 30 feet distant has a 40% chance of making a successful toss. $(20 + [50-30] = 20 = 40\%)$

This attempt takes one round. If it is unsuccessful, the coiling of the rope for a second attempt takes 1d6 rounds. Characters may make as many attempts as they wish. This method carries the additional advantage of being virtually soundless.

Of course, catching the grapple or loop on the opposite side simply means that one end of the rope is anchored. The other end can be tied off to a handy protrusion (50% chance of finding one), tied to a spike hammered into the stone, or held by a character (see Belays).

A character crossing on such a line is in a precarious position indeed, and must make a Climbing Check each round that he is thus suspended. The character is allowed a +30% modifier to his Climbing Rating, but modifiers for armor and encumbrance still apply. A rope is always considered a nonslippery surface.

The rate of climb listed for "Rope and Wall" applies to characters making a crossing on a rope.

SWINGING ACROSS

Swinging Across

Perhaps a character cannot find a means of anchoring the rope on his side of a chasm. Or perhaps he now holds the unenviable position of last man on the line. Sometimes hostile creatures remove one end of an unguarded rope, causing characters supported by that rope to swing into a wall or other unforgiving surface.

If this should happen, all is not necessarily lost. Of course, if the character happens to be crossing directly over a pit of bubbling lava, he could be in real trouble if the loose rope swings to the floor. In crossing a cavern or other open area, however, the following procedures apply.

A rope supported at one end swings to a point where it is hanging straight down. If a weight (such as a character) is attached to the rope, momentum will carry the rope past the straight down point, creating a pendulum motion. It is this momentum that gives characters problems when they ram into a solid object during their swing.

If a character is holding a rope that swings into an obstacle, he must make an immediate Climbing Check to see if he can hold on. This check is modified by a -5% per 10 feet of rope between the character and the point at which the rope is fastened. A successful check means that the character has held on; an unsuccessful check means that he has been knocked off the rope and has fallen.

A character thus smashed also takes 1d6 points of damage per 20-foot section of rope between the character and the attached rope end. Drop all fractions, so a character on a 15-foot rope receives no damage, and a character 35 feet down a rope suffers only 1d6 points of damage.

Belays

Any character can attempt to protect another character against a fall with a belay. The only tool required is a rope, although spikes can add to the security of a belay.

The character to be protected must have a rope tied securely around him. The character performing the belay holds the other

end of the rope, but does not tie it to himself. Instead, he pays out the rope slowly as the other character moves farther away from him. If the protected character should fall, the character performing the belay grabs the rope tightly and braces himself to try to catch the shock of the other character's weight.

The character performing the belay must roll a Climbing Check in order to arrest the fall. If the check is successful, the rope is held and the other character can fall no farther than the length of the rope. If the check is unsuccessful, the rope runs through the hands of the belayer too quickly, and the fall proceeds normally.

If a character successfully holds the rope during a belay, but that character occupies a dangerous or narrow spot, the character must make a second Climbing Check. If the second check is successful, the character maintains his hold on whatever surface he is clinging to. If the second check is unsuccessful, however, the belayer joins his companion in a fall.

This second check is required of all belayers who are on a sheer surface of any kind, and also to characters who are on a level spot, but are within three feet of the edge of the sheer surface, assuming that the fall pulls them in the direction of the drop-off.

Any number of belayers can be strung together, in case the first one fails to stop the fall. Each additional falling character on the rope subtracts 10 from the Climbing Success chance of the character attempting to belay.

A character performing a belay from a dangerous spot can use a spike to anchor himself. If he is thus anchored, he performs the belay normally. If he successfully arrests a fall with a Climbing Check, but then fails his second Climbing Check so that he is also pulled into the fall, the spike should then catch both falling characters. As when a spike is used to protect a climber, however, it has a 10% chance per character supported of pulling loose.

A belay can also be used to hold one end of a rope that a character will be using for support, as in a chasm crossing. If a grappling hook is used to fasten the far side of a rope, one character may establish a belay on the near side of the crossing. Characters can then make the crossing as if the rope were attached at both ends. This type of belay does not require the character holding the rope to make any checks.

Example of a Party Roped Together: This party of adventurers is trying to cross a broken region of chasms and stalactites. They are roped together to decrease the chance of a dangerous fall. If character #1 falls, then player #2 rolls a Climbing Check to see if his character stops the fall. Failure means that character #2 also falls and player #3 must roll to see if his character stops his falling comrades. This continues until either one player successfully

rolls a Climbing Check or all the characters fall.

As another example, if character #4 falls, the players of characters #3 and #5 must roll Climbing Checks. Both must succeed to halt the fall. If either fails, that character joins #4 in the fall and the character next to him must try to halt the fall. This continues until one character on each side of the fall holds fast, or all the characters on one side (or both sides) fall.



Roping Together

Characters can attempt to insure greater group security by roping together—tying the characters to a rope with 20 or 30 feet of slack between them. A party that is roped together insures that no single member will suffer a damaging fall; however, the group takes the risk of all members falling together.

Characters who are roped together must move at the rate of the slowest member. The order of characters on the rope (first, second, third, etc.) should be noted on paper or displayed with miniatures. If one character falls, the characters on each side of him must make Climbing Checks. If both checks are successful, the fall is stopped immediately. If one character arrests the fall, but the other fails, the successful character must check again to arrest the fall of two characters (-10 modifier). In addition, the character next to the second character to fall must make a Climbing Check to catch two characters.

Each time the weight of a new character is added to those who have fallen, the characters who have not fallen but are adjacent to those falling must make Climbing Checks. This process is continued until a successful Climbing Check is made to each side of the falling characters, or until the entire party falls.

If a character or characters on the end of the rope fall, only the single character next to the falling character must make a check. Thus, it is more advantageous to have either the first or the last character fall, especially if the character next to the first or the last one is a skilled climber.

BRIDGES

In networks of subterranean passages that have been in use for centuries or millennia, it is not uncommon to discover a bridge over a crossing. Regardless of the type, if a bridge has been maintained periodically, and has not been sabotaged, characters can cross without making any checks.

If the bridge has fallen into disrepair, or someone has taken steps to weaken or destroy it, the crossing becomes a risky proposition. The following types of bridges are commonly found in the underearth, each with its own characteristics and risks.

Permanent Bridges

Suspension bridges are among the easiest to build. They are generally anchored in at least two locations on each side, and often in three or four. Suspension bridges swing and sway with the weight of a character's crossing, but usually a rope or two is provided at waist level for handholds.

The problems with suspension bridges generally relate to the rotting of the wood and rope elements of the bridge, although occasional loosening of the anchors can also present problems. An old suspension bridge has a 25% chance per character crossing it of giving way at some crucial point. If this occurs, the character must make a successful Climbing Check or fall.

If the character fails the first Climbing Check, this means that he has fallen through the bridge or off to one side. He is entitled to one more Climbing Check to determine if he can catch a piece of the bridge and arrest his fall. If the character has only one hand free, this check is made with a -25% modifier. The character can drop whatever he is holding in order to free both hands.

Sabotaging an anchor point of a suspension bridge takes 1d8 rounds, and such sabotage can only be detected by a thief's *find traps* roll. Sawing through a rope support of a suspension bridge can be done in one round, but such damage is readily visible to any character who examines the bridge.

Wooden bridges are relatively uncommon in dungeons, since the constant humidity makes them very susceptible to rot. Unless a bridge has been inspected and repaired at least once in the

past year, it stands a 5% chance (per year) of sustaining rot. Rot will first affect the planks and railings of a wooden bridge; the actual supporting beams of the bridge last for 1d20+20 years before beginning to rot.

If characters attempt to cross a rotted bridge, each character stands a 50% chance of stepping onto a rotten portion. If this occurs, the character must make Climbing Checks to determine whether or not he falls, as described for suspension bridges.

Stone bridges are the most solid of all. They are virtually impervious to the effects of sabotage and age. Of course, occurrences such as earthquakes and floods can weaken stone bridges, but even when weakened, a stone bridge will rarely collapse because of the added weight of a character.

However, stone bridges depend upon some kind of support in order to maintain their massive weight. This support might be an arch attached at both ends of the bridge. A stone bridge may also be supported by foundations, each of which is crucial to the bridge's survival.

In these cases, magical sabotage—particularly the *transmute rock to mud* spell—can cause drastic damage to a stone bridge. If the center of an arch is destroyed, the entire bridge will collapse in 1d4 rounds. If a foundation is destroyed, the bridge will instantly collapse in both directions from the ruined foundation until it reaches the next foundation, or the end of the bridge.

Impromptu Bridges

Courageous characters can create and cross the following types of bridges, with varying degrees of risk.

Rope bridges require two ropes, one for a character's feet and one for his hands. A character crossing a rope bridge must make a Climbing Check with a +50% modifier. Note, however, that modifiers for armor and race affect this roll normally.

Rope bridges can be quickly sabotaged by chopping through one of the ropes. A character on the bridge when this occurs must make an unmodified Climbing Check or fall. If the character is clinging to the sabotaged rope with his hands, the check must be made with a -20% modifier; alternately, the character can elect to hold onto the rope and swing down with it as explained earlier under "Swinging Across."

Log bridges include narrow stone arches and other solid but slender crossing platforms. A log bridge's diameter must be 1/4 or less of the character's height to require a check; wider log bridges can be crossed automatically.

If a character is crossing a log bridge, he must make a Climbing Check with a +40% modifier or fall. If the log bridge slopes upward or downward, the modifier drops to +20%. Armor and racial modifiers also apply to log bridge crossings. If the character crawls or has both hands free, the modifier is +80%.

Because of the greater weight of a log bridge, it is much harder to sabotage than a rope bridge. Assuming a log 1 1/2 feet in diameter, a normal human can move a log of 10 feet or shorter length. A human with 17 or 18 Strength or a creature like an ogre can move a 20-foot log. A hill giant, or a fairly young dragon, can move a log of 30-foot length. A large giant or dragon is able to move a 40- or 50-foot log.

FALLING (EXPANDED RULES)

The damage sustained by a falling character is 1d6 for the first 10 feet fallen, 2d6 for the second 10 feet, 3d6 for the third 10 feet, and so on. A 30-foot fall, for example, inflicts a total of 6d6 points of damage to a character.

The maximum damage that any fall can inflict is 20d6, regardless of the height from which the character falls. The maximum damage that a character can sustain by falling over a waterfall is 10d6.

SPELUNKING

For purposes of game balance, assume that a character falls 1,000 feet in one round unless the fall is interrupted.

Stopping a Fall

If a character falls (for any reason) and is next to a wall or other climbing surface, he can attempt to slow his fall by catching onto the surface. Such an attempt can only be made in the first 50 feet of a fall, since after that the character's momentum is too great to allow him to catch anything.

A character can attempt to grab a nearby surface by rolling d100 and getting a result that is less than or equal to 1/2 of the character's Climbing Rating (or thief's *climb walls* ability), if the climbing surface is nonslippery. A slightly slippery climbing surface can be caught on a number equal to or less than 1/4 of the character's Climbing Rating—i.e., the character has only half the chance of stopping the fall that he would have with a nonslippery surface.

A slippery climbing surface cannot be used to stop a fall.

Landing

The normal damage caused by falling is based on the premise that the character lands on a smooth, but hard, surface. Obviously, different surfaces cause differing amounts of damage.

Rough landings deposit the unfortunate character on a surface of broken rocks or other debris, or a slanted surface that sends the character ricocheting off to the side. Landings on a rough surface inflict *double* the normal damage from the fall.

Spikes or other weapon-like features of a landing area inflict damage beyond that caused by the fall. Such damage is determined by how closely packed the deadly obstacles are: usually each spike causes an extra d6 of damage. When spikes or other obstacles are placed in an area, the DM should choose a number of dice to reflect how closely the spikes are packed. A 1d6 group of spikes means that a character will impale himself on 1-6 of the spikes when he falls, while a 3d6 grouping indicates spikes that are much more densely packed. A character striking them will suffer from 3-18 d6 of damage in addition to that inflicted by the fall.

Soft landings include yielding surfaces such as sand, mud, soft loam, pine branches, or flesh. A character fortunate enough to make a soft landing takes only *half* the damage that the fall would normally inflict.

Very Soft landings generally result from some sort of prepared cushion of feathers or straw, etc. Occasionally a character might be fortunate enough to fall into a very soft landing without planning for it, but this is very unusual. A character making a very soft landing can make a saving throw vs. paralysis. If the save is successful, the character sustains *no damage* at all; if it is unsuccessful, he takes *half* the normal amount of damage for the fall.

Water landings can be virtually painless if a character lands correctly, but can be every bit as damaging as a fall onto hard stone if the character does a belly-flop or lands on his back. When a character falls, he can attempt to make a Dexterity Check if he suspects or knows that he will be landing in water. If the check is successful, the character takes 1d6 of damage for every 100 feet of the fall, rounded up. For example, if a character is falling 250 feet into water, but has made a successful Dexterity Check, he suffers only 3d6 of damage. (This indicates that the character has positioned himself to enter the water cleanly, either head or feet first.) If the check is unsuccessful, however, the character sustains the normal damage from the fall.

A character cannot attempt to stop a fall by catching onto a climbing surface and make a Dexterity Check to land in water during the same round. If the fall lasts more than one round, he can attempt a Dexterity Check on the second round.

Sliding Down Slopes

A character sliding down a sloping surface does not receive as much damage as someone falling through open space. On the sloping surface, however, the character suffers abrasions all the way down, unless the slope is very slippery, such as smooth wet rock or ice.

A character sliding down a sloping surface suffers no damage in the first 20 feet, but suffers 1d6 points of damage for each 10 feet of the slide thereafter. In addition, the damage caused by landing is 1d6 for each 40 feet of the slide. If the slope is smooth and relatively slippery, the character sustains no damage while sliding, but takes double the normal damage upon landing.

SPELUNKING

The techniques of spelunking, or cave exploration, can be useful to any characters who have to crawl around in narrow spaces underground. Many aspects of spelunking are subsumed under other movement rules, particularly climbing, swimming, and jumping. Map-making is another dungeoneering skill that has obvious benefits for cave exploration.

Often a cave presents extremely constricted areas of movement to a character, and this section details the effects of such tight passageways. Also, many cave sections are choked with rubble or require excavation, so information on clearing these passages is presented as well.

The Tight Squeeze

Tunnel ceilings that are lower than the height of the characters walking through them can penalize a party's movement and combat capabilities. However, since the heights of individuals within a party may vary widely, the effects of the following conditions will also vary from one party member to the next.

If the ceiling is lower than a character's height, but at least 2/3 of his height, he can walk upright at 2/3 of his normal movement rate. The character suffers no adverse combat effects.

Characters must travel on hands and knees through any tunnel that is less than 2/3 their height. Of course, this means that occasionally humans will be grunting painfully along on all fours while their halfling, and perhaps dwarven, companions trot along with no more precautions than an occasional ducking of their heads.

In a tunnel whose diameter is 1/4 or less of the character's height, the character must actually slither along in a prone position. See the limits below for the minimum heights and widths of tunnel that can accommodate characters of different races.

A character traveling on hands and knees moves at 1/2 his normal movement rate. If he should be so unfortunate as to engage in combat while in this awkward position, he suffers a -5 penalty to all of his attack rolls. He also loses all Dexterity and shield bonuses to AC. Additionally, weapons such as longbows, broadswords, and battleaxes cannot be employed in these close quarters. Note the "Space Required" listing on the Weapons Tables for AD&D® rules; this gives a clear indication of what weapons can and cannot be employed in a narrow tunnel.

A character who is prone because of a low ceiling suffers even more serious penalties to his chance in combat. Of course, the space required limits his choice of weapons even further. In addition, the character suffers a -8 modifier to all of his attack rolls, and can gain no Armor Class benefits from a shield or a Dexterity bonus. When moving, the character is limited to 1/4 of his normal rate of movement.

The minimum tunnel widths that can accommodate different characters are listed below. This chart is designed to reflect

average-sized characters; individuals of exceptional girth or slenderness should have the limits modified appropriately.

Table 7: MINIMUM PASSAGEWAY SIZES

Character Race	Tunnel Width	Tunnel Height
Human	2 ft	1 ft
Half-orc	2 ft	1 1/3 ft
Dwarf	2 ft	1 ft
Gnome	1 1/2 ft	3/4 ft
Elf	1 1/2 ft	3/4 ft
Halfling	1 ft	2/3 ft

These sizes assume that the character is not wearing any kind of bulky armor or backpack. Usually a character drags his pack behind him, thus enabling negotiation of tighter passages.

If a character is wearing armor, the minimum size of the tunnel he can pass through must be increased, based on the type of armor worn. The following table lists the increases in tunnel size needed to accommodate armor of various types.

Table 8: ARMOR EFFECTS ON CHARACTER WIDTH

Armor Type	Increase in Diameter
Leather armor	none
Padded armor	1/6 ft
Studded leather	1/6 ft
Scale mail	1/4 ft
Ring mail	1/6 ft
Chain mail	1/4 ft
Splint mail	1/4 ft
Banded mail	1/2 ft
Plate mail	2/3 ft
Field plate	5/6 ft
Full plate armor	1 ft

Note that, particularly in the case of plate armor, the increase in the character's width reflects not just the thickness or bulkiness of the armor, but the decreased maneuverability that the character possesses in tight confines.

EXCAVATION

The types of barriers that characters may have to dig out of the way include those that they can move with their bare hands, such as piles of stone, earth, and other debris, as well as those that require tools to move, such as solid walls of dirt and rocks.

Rubble

Loose rocks are a common enough obstacle in caves and dungeons, especially older ones. The natural erosion that occurs gradually causes material to fall from the ceiling to the floor. Also, previous inhabitants may have pushed rubble into an area purposely, using it as a dump.

If the rubble is loosely packed—i.e., there are individual chunks of small rocks rather than one or two huge slabs, characters should be able to clear their way through. Of course, there is often no way to tell how much of the corridor may be blocked by such debris.

In one turn of excavation, a character can clear 1d4 feet of passageway to a width equal to the minimum passageway size listed in Table 7. If the passage is only partially blocked, the distance that can be cleared in a turn is increased to 2d4 feet.

Solid Barriers

Characters excavate solid barriers at the rates listed in Table 27: Mining Rates (on page 49). These rates assume that the characters are using pickaxes to aid in the excavation. If other metal tools, such as shovels or swords, are substituted, the rate of excavation is only 1/4 of the rate listed.

FATIGUE AND EXHAUSTION

The long periods of time required for an expedition to penetrate far underground, and the large amount of equipment that the members of such an expedition must carry along with them, mean that character fatigue and exhaustion must be considered in the context of the deep underground adventure.

Fatigue, as noted on page 69 of the *DMG*, is influenced by a wide variety of factors. The intensity of a character's activity, his personal stamina, and the conditions under which the exertion occurs all determine the extent to which a character becomes fatigued. These fatigue rules are intended as an abstract representation of how a character can be affected by fatigue and exhaustion.

These effects only occur if a character spends time engaged in unusually strenuous activities. Merely marching along, even over difficult terrain, is not considered such an activity for purposes of this rule. Unusually strenuous activities include fighting, running, climbing continuously, chopping wood, swimming in rough or swiftly moving water, or moving while encumbered.

Even in such cases, a character can avoid the effects of fatigue by resting for two turns after exerting himself for four turns. As long as this pattern of rest is maintained, the character is not susceptible to the effects of fatigue.

If a character spends six turns performing an unusually strenuous activity (without two turns of rest), the player must make a Constitution Check. If the check fails, the character becomes fatigued. If the check is successful, the character can continue to function normally. If, however, he performs five more turns of unusually strenuous activity, the player must make another Constitution Check, with the same effects as described above. If this second check is successful, but the character continues to labor, the next check is made after four turns of strenuous activity, and so on until the character must check every turn. After the first or any later Constitution Check, if they have all been successful, the character can fully recover his strength himself by spending an hour (six turns) resting.

Effects of Fatigue

If a character becomes fatigued, the following effects occur immediately, and last until the character has an opportunity to rest for two hours (12 turns).

All of the character's attribute scores are lowered by 2, with all attendant (temporary) losses of hit points, spells, and combat bonuses. Henchmen, however, will not desert because of temporary lowering of Charisma.

In addition, the character must apply a -2 penalty to all of his attack rolls, damage rolls, and saves.

A fatigued character can continue to perform the strenuous activity that caused him to become fatigued, but he runs the risk of becoming *exhausted*. The fatigued character must make a Constitution Check every turn that he performs the strenuous activity, rolling against his revised Constitution. If a fatigued character fails one of these Constitution checks, he becomes exhausted.

Effects of Exhaustion

An exhausted character cannot perform any voluntary physical labor. Instead, he must rest until he has fully recovered. If forced to act because of a life or death situation (a monster attack, for example), the character functions with the following penalties.

An exhausted character suffers a -4 penalty to all attribute and combat scores affected by fatigue. This penalty is instead of, not in addition to, the effects of fatigue.

A character can attempt to recover from exhaustion after one hour of uninterrupted rest. After this rest, the player rolls a Constitution Check, using the character's revised Constitution. If this check is successful, the character becomes merely fatigued. If the check is unsuccessful, the character must rest for a full hour before trying again, and so on until the character becomes fatigued instead of exhausted. Recovery from fatigue occurs as described above.

MOVEMENT EFFECTS OF DARKNESS

Although characters without the ability to see in the dark normally make every effort to provide themselves with a source of light underground, sometimes unforeseen situations can plunge a party into total darkness. Even characters with infravision have difficulty seeing objects that are the same temperature as the surroundings of the underground.

This can be a very unsettling experience for a group of adventurers. The following effects can help recreate this situation for gaming.

If characters try to move at their normal movement rates in complete darkness, even probing the floor and walls ahead of them does not guarantee that the party avoids hazards. If a character encounters an obstacle while moving in darkness, he must make a Dexterity Check. Failure means that the character does not detect the obstacle in time to react, and his momentum carries him into it.

Characters in the dark can safely move at 1/3 their normal movement rates. This pace is slow enough to keep the lead characters from blundering into any gaping holes in the floor, or walking off the edge of a cliff. This also assumes that the characters are steadily probing the ground in front of them as they plod along.

Unless a character has some means of determining direction, such as trailing a hand along a corridor wall, it is virtually impossible to walk in a straight line in complete darkness. This is not usually an issue in narrow dungeon passages. On the wide-open but pitch-dark plains of some realms of the underground, however, it is truly a formidable task for a character to keep his bearings about him.

The DM should make a secret roll on 1d12 to determine the unknown changes of course that might occur if characters walk in complete darkness. Consult the following table to find the result:

Table 9: COURSE CHANGES IN DARKNESS

D12 Roll	Character's Course Change
1-3	None, continue straight ahead
4-5	45 degrees right
6-7	45 degrees left
8	60 degrees right
9	60 degrees left
10	90 degrees right
11	90 degrees left
12	135 degrees (1-3 right, 4-6 left)

This roll should be made after every three turns that characters spend walking in darkness. The roll should be made at the end of the character's uncharted movement, even if such movement has lasted less than three turns. For each turn less than three, however, allow a -1 modifier to the d12 roll.

If characters travel over rough or uneven floors in darkness, or stand a chance of tripping over small rocks or other rubble, the DM can require as many Dexterity Checks as he deems appropriate. Each failed Dexterity Check means that the character sustains 1 point of damage in a rough fall.

Characters traveling over these surfaces can prevent any such accidents by slowing their movement to 1/6 their normal rate.

MOVEMENT ON SLIPPERY HORIZONTAL SURFACES

The problems inherent in moving on slippery surfaces involve the risk of falling and a decreased ability to suddenly change direction or speed of movement. Ice is probably the most common slippery surface, but oily patches of smooth rock, or even the secretions of monsters such as the boggle, can create slippery conditions.

Characters who cautiously tread on slippery surfaces can avoid the risk of falling down. Individuals moving thus can travel at their normal movement rate as long as they move in a straight line. If the character attempts to turn, stop suddenly, or break into a run, the player must make a Dexterity Check or the character will fall down. Characters who fall down do not suffer damage, but must spend a full round climbing to their feet.

If a character wants to be exceptionally cautious, he can move at 1/2 of his normal movement rate. In this case, he can turn without making a Dexterity Check. Or the character can spend a round slowing down from normal speed to 1/2 speed, and then can turn without making the check.

Characters engaging in melee combat on such surfaces must make a Dexterity Check before every attack. If the check fails, the character does not make the attack, falls down, and suffers a +4 penalty to his Armor Class for the round. The character must spend the next round getting to his feet, during which the AC penalty remains in effect; the character cannot make an attack during this round.

If the character elects to fight from the ground rather than regain his feet, the +4 AC penalty remains in effect. In addition, the character incurs a -4 penalty on all of his attack rolls.

Crampons are spiked plates of metal that a character can lash to the soles of his shoes or boots. In some cases, boots are made with spikes attached. Crampons greatly increase the reliability of a character's footing on ice or other slippery surfaces. Characters wearing crampons always retain their footing on slick surfaces—they need not make any Dexterity Checks while turning or fighting.

A pair of crampons requires one turn to attach and half that long to remove. If a character attempts to walk on a nonslippery surface in crampons, he will make twice as much noise as he otherwise would, and will wear out the crampons in 1d6 miles of such abuse.

PROFICIENCIES

Character proficiencies governing the use of weapons have long been a part of the AD&D® game. The *Oriental Adventures* rules introduced nonweapon proficiencies for artistic, practical, and social categories. In *Dungeoneer's Survival Guide*, the concept of proficiencies is expanded to include a number of common skills that can aid characters in underground exploration and survival.

The proficiencies herein represent an optional addition to the rules set, usable at the DM's choice. If proficiencies are available to the player characters, then non-player characters should also be allowed to earn them, or the balance of the game will suffer.

All characters start play with a number of proficiency slots at 1st level. Depending on the character's class, some or all of these can be filled by weapon training. Slots that are not devoted to weapons can then be assigned to other skills. Characters are not required to fill all of their proficiency slots; those not filled can be saved and used at a later time. Once a proficiency slot has been filled, however, it cannot be changed for any reason. Table 10: Character Proficiencies lists the number of proficiencies allotted to each character class, the number of proficiencies that must be assigned to weapon and nonweapon areas, and the number gained per level.

Table 10: CHARACTER PROFICIENCIES

Class of Character	Initial # of Proficiencies	Add Proficiency per Level
	Weapon/Nonweapon	Weapon/Nonweapon
CAVALIER*	3/2	1/1 per 2 levels
Paladin*	3/2	1/1 per 2 levels
CLERIC	2/3	1/1 per 4 levels
Druid	2/3	1/1 per 5 levels
FIGHTER	4/2	1/1 per 3 levels
Barbarian	6/3	1/1 per 2 levels
Ranger	3/2	1/1 per 3 levels
MAGIC-USER	1/3	1/2 per 6 levels
Illusionist	1/3	1/2 per 6 levels
THIEF	2/3	1/1 per 4 levels
Acrobat	2/3	1/1 per 4 levels
Assassin	3/2	1/1 per 4 levels
MONK	1/1	1/1 per 2 levels
BARD	As other classes	1/1 per 4 levels

* 0th-level horsemen and 0th-level lancers have one non-weapon proficiency.

Initial # of Proficiencies shows the number of proficiencies that the character has at 1st level. The number to the left of the slash is the number of weapon proficiencies; the number to the right is the number of nonweapon proficiencies. Characters must fill the slots with the appropriate type of proficiency.

Add Proficiency per Level lists the number of experience levels that must be gained before the character is entitled to add another proficiency. For example, 1/1 per 4 levels means that the character must advance four levels to earn an additional proficiency in both the weapon and nonweapon categories. First level is included when counting levels.

NONWEAPON PROFICIENCIES

Success and Failure

Under normal conditions, there is no chance of failure involved when characters attempt to use most nonweapon proficiencies. A boatwright, for example, given all of the tools of his trade, plenty of raw materials, and time, is able to produce a boat to any realistic set of specifications. If the same boatwright is stranded in a dank underground cave with a few pieces of rope and whatever driftwood happens to float by, however, he must make a Proficiency Check to determine whether his attempt to build a crude boat is successful.

A Proficiency Check for use of a proficiency is necessary in two cases: to determine if the specific task is performed within a given set of limitations (as in the boatbuilding example), or to gauge the quality of a piece of work when such an evaluation is desired.

A Proficiency Check is made exactly like an Ability Check. The player rolls 1d20 and compares the result to the character's ability score in the area listed for that proficiency. In many cases, a proficiency will be listed with an Ability Check modifier (see the specific proficiencies). This is a die roll modifier. Thus, a +3 makes a d20 roll of 12 equal to a 15. In addition, as a character uses additional proficiency slots to improve a given proficiency (instead of adding a new one), the proficiency die roll modifier is increased by 2 for each additional slot.

When the check is to determine the quality of workmanship, a successful roll means that the work is of superior craftsmanship. The exact amount of success determines the degree of perfection, so that a 20 equals a nearly flawless creation. If the character sells this product, the price earned is from 110%-200% of what would normally be offered.

Regardless of modifiers, whenever a Proficiency Check results in a 3 or less, the attempt to use the proficiency fails.

Construction Time

Many proficiencies list a specific amount of time required for the use of the proficiency. This time requirement assumes that the character devotes his entire working day to his proficiency. If the character takes time out to hunt, fight, or yield to any other distractions, the time required to accomplish the task should be correspondingly increased.

In addition to the weapons proficiencies described in the *Players Handbook* and *Unearthed Arcana*, characters can learn proficiencies in various areas related to underground exploration. Since all characters spend time engaged in pursuits other than combat, these nonweapon proficiencies reflect abilities gained through noncombat activities.

Nonweapon proficiencies allow players an additional opportunity to develop well-rounded characters. A variety of nonweapon proficiencies can help ensure the survival of a character and his party. Players are encouraged to distribute nonweapon proficiencies among their characters.

NONWEAPON PROFICIENCIES

Nonweapon proficiencies also provide a means of adjudicating player characters' use of Secondary Skills, as generated by the table on *DMG* page 12. Characters who have earned Secondary Skills in their campaign should be granted proficiencies in these areas of skill. Converting Secondary Skills to proficiencies requires one proficiency slot for every one or two Secondary Skills. Thus, characters with two Secondary Skills can earn proficiencies in both areas by using only one proficiency slot. Since some Secondary Skills do not have corresponding proficiencies in these rules, they continue to function as normal Secondary Skills.

This section includes two types of proficiencies: adventuring proficiencies and craftsman proficiencies.

Adventuring proficiencies represent skills that increase a character's capacity for dealing with the underground environment. Some useful adventuring proficiencies include climbing, swimming and boating. *Craftsman proficiencies* generally represent skills that help a character prepare for adventuring, and these skills often require a great deal more equipment and resources than adventuring skills do. Weaponsmith, smelter, and boatwright are proficiencies of the craftsman class.

Peaceful proficiencies are acquired during characters' free time. There are normally gaps between adventures and there may even be unoccupied hours during the course of the adventures themselves. These free periods allow characters sufficient time to learn and develop new skills.

The only requirements for learning a proficiency are that the character have the necessary tools at hand and, when first learning the skill, be in an environment where he can receive training and guidance from those skilled in the art. To learn to build a boat effectively, a character must have a body of water available, the wood, skins, reeds, or other material that he intends to build the boat with, and the presence and cooperation of a skilled boat builder.

It may occasionally be possible for a character to obtain a magical item that can aid in the use of a given proficiency. Such items are only useful if the character possesses the appropriate proficiency. If the proficiency is known, the magical item can either improve the success rate of the character when employing the proficiency, or improve the quality of the product or function of the proficiency.

Proficiencies can also be improved as characters advance in levels and gain access to more proficiency slots. When a slot is added, it can be used to augment an existing proficiency instead of adding a new one. The modifier (the number that is added to the appropriate ability score for Proficiency Checks) of a proficiency thus enhanced is increased by two. For example, a character with a minor proficiency modifier of -1 could increase that rating to 1 by adding an additional slot of proficiency to his minor skill.

Artisans, Craftsmen, and Other NPCs

The nonweapon proficiencies are skills that can be learned by adventurers in addition to their primary vocations. Naturally, most adventurers do not have a great deal of time in which to pursue these extra skills.

Characters who do not devote much of their time to the mastering of character class skills, however, tend to become even more proficient in nonweapon skills than player characters. These artisans devote their lives to perfecting proficiencies that do not involve adventure and combat.

In order to calculate the proficiency rating of these characters at an appropriately accomplished rate, a conversion is necessary.

NPCs who do not claim a weapon proficiency should be allowed to claim two nonweapon proficiency slots after passing

through a period of training for a peaceful skill. This means that a character has progressed through the apprenticeship to the journeyman stage of his craft.

After one to four years of practice as a journeyman, the character advances to the master level of his profession, and is granted an additional proficiency slot. For every four years of work thereafter, he gains an additional proficiency slot. Thus, as a master craftsman gains decades of experience, he becomes very skilled at what he does. This creates a more realistic representation of the roles of such skilled noncombatant characters.

A character with an adventuring character class can elect to gain peaceful proficiencies in lieu of weapon proficiencies. As the character advances in level, he can elect to gain one additional nonweapon proficiency slot at a cost of one weapon proficiency slot. He cannot, however, gain additional weapon slots by sacrificing nonweapon slots.

Optional Bonuses

The DM, as always, is allowed to modify and expand on the rules for nonweapon proficiencies. If, for example, an armorer has access to a particularly strong type of metal, the DM might allow the character to produce a limited amount of improved non-magical +1 or +2 armor.

Additional modifiers can be added based upon a character's background, if this has been developed for campaign purposes. If a character spent much of his youth as an apprentice to a skilled weaponsmith, the DM can rule that the character's lessons were so thorough that he can gain automatic proficiency as a weaponsmith.



Craftsman Proficiencies

Each proficiency on Table 11: Craftsman Proficiencies gives the number of proficiency slots required to gain that proficiency. In addition, any die roll modifiers that apply to the Proficiency Check are listed. Remember, the Proficiency Check is made like an Ability Check. When the slots required number is marked with an asterisk, a Proficiency Check is required every time that proficiency is used. The appropriate ability score to use for the Proficiency Check is given for each Proficiency.

Table 11: CRAFTSMAN PROFICIENCIES

Proficiency	Slots Required	Appropriate Ability	Die Roll Modifier
Animal Trainer	1*	Wisdom	0
Armorer	2*	Intelligence	-2
Blacksmith	1	Strength	0
Boatwright	1	Intelligence	-2
Bowyer/Fletcher	1*	Dexterity	-1
Carpenter	1	Strength	0
Gem Cutter	2	Dexterity	-2
Leatherworker	1	Intelligence	0
Miner	2*	Wisdom	-3
Potter	1	Dexterity	-2
Smelter	1	Intelligence	-2
Stonemason	1	Strength	-2
Weaponsmith	3*	Intelligence	-3
Weaver	1	Intelligence	-1

* This proficiency requires a d20 roll for success each time it is used.

Animal Trainer: A character with this proficiency must declare what type of creature he will specialize in at the time the proficiency is first gained. Common examples include horses, dogs, falcons, pigeons, or elephants. A character can select a more exotic species if he wishes.

Any additional proficiency slots gained can be used to increase the character's Proficiency Check modifier in the type of animal chosen, or can be used to add another type of animal that the character is able to train.

The training of an animal for a typical role requires three months. An animal trainer can have up to six animals in training at a given time. Typical roles include guarding and attack (for dogs), riding (for horses), and heavy labor (for elephants). Such training grants a +10 modifier to the character's Proficiency Check at the end of the training period.

Animals that have been trained in their typical areas can occasionally be given additional training to increase the number of functions that they can perform. Such additional training requires another three months, and an animal trainer can work with no more than three animals during this type of training. Examples of additional training include training elephants, horses, or dogs for war, and training falcons to retrieve specific objects. The DM must decide the chance of success if a character attempts to train an animal to perform a task at the very limits of possibility.

After the advanced training period is over, the character must make an unmodified Proficiency Check for each animal trained. Success means that the animal can perform the advanced tasks it has been taught.

Armorer: This character can make all of the types of armor listed in the *Players Handbook* and *Unearthed Arcana* tomes, given the proper materials and facilities. When making armor, the Proficiency Check is rolled at the end of the normal construction time.

The time required to make armor is equal to two weeks per level of AC below 10. For example, a shield would require two weeks of work, whereas a suit of full plate armor would require 18 weeks of work.

If the Proficiency Check indicates a failure but is within four of the amount needed for success, the armorer has created usable, but flawed, armor. Such armor functions as one Armor Class worse than usual, although it looks like the armor it was intended to be. Only a character with armorer proficiency can detect the flaws, and this requires careful and detailed inspection.

If the flawed armor is struck in melee combat with a natural die roll of 19 or 20, it breaks. The character's AC immediately drops four additional classes (although never above 10), and the broken armor hampers the character's movement. Until the character can remove the broken armor (a process requiring 1d4 rounds), the character moves at 1/2 of his normal rate and suffers a -4 modifier on all of his attack rolls.

If an armorer is creating a suit of field plate or full plate armor, the character who will use the armor must be present at least once a week during the creation of the armor, since such types of armor require very exact fittings.

Blacksmith: A character with blacksmith proficiency is capable of making tools and implements from iron. Use of the proficiency requires a forge with a coal-fed fire and bellows, as well as a hammer and anvil. The character cannot make armor or most weapons, but can craft crowbars, grappling hooks, horseshoes, nails, hinges, plows, and most other iron objects.

A blacksmith is also capable of making a limited collection of weapons, primarily hammers and maces. He can make a weapon provided that it does not have a sharp edge or sharp point.

Boatwright: The boatwright, or boatbuilding, proficiency allows a character to construct all sorts of watercraft, up to a maximum size of 60 feet long. Larger vessels require the skills of a character with shipbuilding proficiency, an area outside the province of underground exploration.

The time period required to build a boat depends on its size. As a general guide, the boat requires one week of construction time per foot of length. Two characters with boatwright proficiency cut this time in half; three reduce it to one third, etc. A maximum of one boatwright per five-foot length of the boat can work on the vessel simultaneously.

The basic boat includes the hull, masts, deck, and benches as required. Additional features such as a cabin or sealed hold add about a week apiece to the construction time. Characters without boatwright proficiency can aid the boatwright in construction, but it takes two such characters to equal the time savings that one additional skilled boatwright would provide.

Bowyer/Fletcher: This character can make bows and arrows of the types given in the *Players Handbook* weapons lists on pages 37 and 38.

A weaponsmith is required to fashion arrowheads, but the bowyer/fletcher can perform all other necessary functions. The construction time for a long or short bow is one week; composite bows require two weeks; 1d6 arrows can be made in one day.

When the construction time for the weapon is completed, the player makes a Proficiency Check. If the check is successful, it means that the weapon is of fine quality and will sustain many years of normal use without breaking. If the check fails, the weapon is still usable, but has a limited lifespan: An arrow breaks on the first shot; a bow breaks if the character using it rolls an unmodified 1 on his d20 attack roll.

Option: If a character wishes to create a weapon of truly fine quality and the DM allows it, the player can opt to use this alternate procedure for determining the success of his attempt. When the Proficiency Check is made, any failure means that the

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weapon is useless. However, a successful check means that the weapon enables the character to use Strength bonuses to attack rolls and damage. Additionally, if the Proficiency Check is a natural 20, the range of the bow or arrow is increased by +2" for all range classes.

Carpenter: A character with carpenter proficiency is needed for the construction of wooden shelters, towers, barricades, and other structures. A single carpenter can build a wooden object the size of a 10-foot cube in a week. This time can be reduced by helpers, so that seven characters—only one of whom must be a carpenter—can build a 10-foot cubic structure in a day. One carpenter is needed for every nine non-carpenter workers.

Gem Cutter: A character with this proficiency can finish the rough gems that are discovered through mining at a rate of 1d10 stones per day. A gem cutter derives no benefit from the assistance of nonproficient characters. Every gem-cutter must work with a good light source, and needs an assortment of chisels, small hammers, and specially hardened blades.

Leatherworker: This proficiency allows a character to tan and treat leather, and to make clothing and other leather objects. The character can make leather armor, as well as backpacks, saddlebags, saddles, and all sorts of harnesses.

Miner: The uses of this proficiency are primarily described and expanded upon in the rules on mining (page 49). A character with this proficiency is needed to find a site for a mine, and to supervise the operations of the mine.

Potter: A character with this proficiency can create any type of clay vessel or container commonly used in the campaign world. The character requires a wheel and a kiln, as well as a supply of clay and glaze. The character can generally create two items of small or medium size, or one item of large size per day. Then the pieces of pottery must be fired in the kiln for an additional day.

The raw materials involved cost three cp to make a small item, five cp to make a medium-sized item, and one sp to make a large item.

Smelter: The smelter proficiency is closely tied to the miner proficiency, since between them they provide all of the metal used in the campaign world. A character with this proficiency can operate a smelter, which is essentially an extremely hot forge. Using this forge and the occasional application of certain liquids, including water and acids, the smelter separates the metal from the rocky ore with which it is usually mined.

The amount of ore that can be processed is more a function of the size of the smelter than the character's working rate. A small smelter can process ore as fast as four miners can produce it. A medium smelter can process the ore excavated by up to 20 miners. A large smelter can process the ore excavated by up to 100 miners.

Because of the materials needed to operate it, a smelting operation costs money to maintain. This expense is in addition to the cost of the smelting equipment itself (listed on the new equipment tables). A small smelting operation costs five gp per day to operate; the cost of a medium smelting operation is 12 gp per day, and a large smelting operation costs 25 gp a day to run. The smelter only costs money when it is operating. Thus, it is common practice to collect a stockpile of ore before beginning to smelt it, so that the smelter can run at maximum efficiency until all the stockpiled ore has been processed.

Stonemason: A character with this proficiency is able to build structures from stone in such a fashion that they last for many years. The stones are often, but not always, mortared together. A stonemason equipped with chisels, hammers, wedges, and a block and tackle can build a section of wall one foot thick, 10 feet long, and five feet high in a day.

Weaponsmith: This highly specialized proficiency allows a character to perform the difficult and highly exacting work involved in the making of metal weapons, particularly those with blades. The character blends some of the skill of the blacksmith with an ability to work fine detail to create blades of strength and

sharpness.

The times required to make various types of weapons are listed on Table 12: Weapon Making, along with the approximate cost in materials to make one of the weapons listed.

Table 12: WEAPON MAKING

Weapon	Construction Time	Material Cost
Arrowhead	1-2/day	1 cp
Battle Axe	10 days	10 sp
Hand Axe	5 days	5 sp
Dagger	5 days	2 sp
Crossbow, heavy	20 days	10 sp
Crossbow, light	15 days	5 sp
Fork, trident	20 days	10 sp
Spear, lance	4 days	4 sp
Shortsword	20 days	5 sp
Longsword	30 days	10 sp
Two-handed sword	45 days	2 gp

Players can gain estimates for the times required to make weapons that are not listed here by comparing them to listed weapons.

When the construction of a weapon is completed, the player must make a Proficiency Check. If the check is successful, it means that the weapon created is of very fine quality and will last through many combats. If the check fails, the weapon is still usable, but has a limited lifespan. The weapon breaks and becomes useless if the character wielding it rolls an unmodified 1 on his d20 attack roll.

Option: As with the bowyer proficiency, the character can attempt to create a weapon of truly fine quality at some risk if the DM is agreeable. An unsuccessful Proficiency Check means that the weapon is worthless, but a successful check means that a nonmagical weapon has been created that inflicts +1 damage on all successful attacks. If the unmodified Proficiency Check is a 20, the weapon also receives a +1 bonus to all attack rolls.

Weaver: A character with weaving proficiency is able to create garments, tapestries, and draperies from wool or cotton. The character requires a spinning apparatus and a loom. A weaver can create two square yards of material per day.

Adventuring Proficiencies

Table 13: ADVENTURING PROFICIENCIES

Proficiency	Slots Required	Appropriate Ability	Die Roll Modifier
Animal Noise	1	Wisdom	-1
Blind-fighting	1	NA	NA
Boating	1	Wisdom	+1
Direction Sense	1*	Wisdom	+1
Endurance	2	NA	NA
Fire-building	1	Wisdom	-1
Fishing	1*	Wisdom	-1
Fungus Identification	1	Intelligence	+6
Healing	2*	Wisdom	+2
Mountaineering	1	NA	NA
Riding	1	Wisdom	+3
Rope Use	1	Dexterity	0
Slow Respiration	1	NA	NA
Sound Analysis	1	Wisdom	-1
Swimming	1	Strength	0

* This proficiency requires a d20 roll for success (Proficiency Check) each time it is used.

NONWEAPON PROFICIENCIES (ADVENTURING)

NA: Not Applicable means that use of this proficiency never requires a Proficiency Check and thus these categories do not apply.

Animal Noise: A character with this proficiency is capable of imitating noises made by various animals. A successful Proficiency Check means that only magical means can distinguish the noise from that of the actual animal being imitated. A failed die roll means that the sound varies from the correct noise in some slight way.

If the die roll fails, this does not mean that all creatures hearing the noise know that the sound was fake. While creatures and humanoids that are very familiar with the noise know this automatically, other creatures or characters in earshot are allowed Wisdom Checks to determine if they detect the fake.

Blind-fighting: A character with this proficiency has trained himself to respond to sound, smell, and touch stimuli, and thus is less hampered by completely dark conditions than normal characters are. Blind-fighting proficiency is available to all character races, but is obviously most useful to those not possessing infravision. This proficiency can be used whenever a character cannot see, whether the reason is darkness, a blindfold, or some kind of natural or magical blindness.

A character with blind-fighting proficiency suffers only a -2 on all attack and damage rolls, and saving throws, instead of the standard -4. Such characters suffer no penalties to their Armor Class because of darkness, and retain special abilities that would normally be lost in darkness. Thus, a thief with blind-fighting proficiency could still score extra damage for a *backstab* in the dark, and likewise, a ranger would still inflict extra damage on giant-class creatures.

In addition, the chance of the character stumbling over a drop-off or falling from a sheer surface because of darkness is reduced to half that of a nonproficient character (i.e., the Dexterity reduction is only 1, and the Climbing Rating penalty is only -5%).

Boating: A character with boating proficiency is needed to

guide a boat down a rapid stream and to reduce the dangers of capsizing a canoe or kayak. In addition, a character with boating proficiency can insure that a boat is propelled at its maximum speed. The details on the exact uses of this proficiency are included in the section on Underground Waterways (page 43).

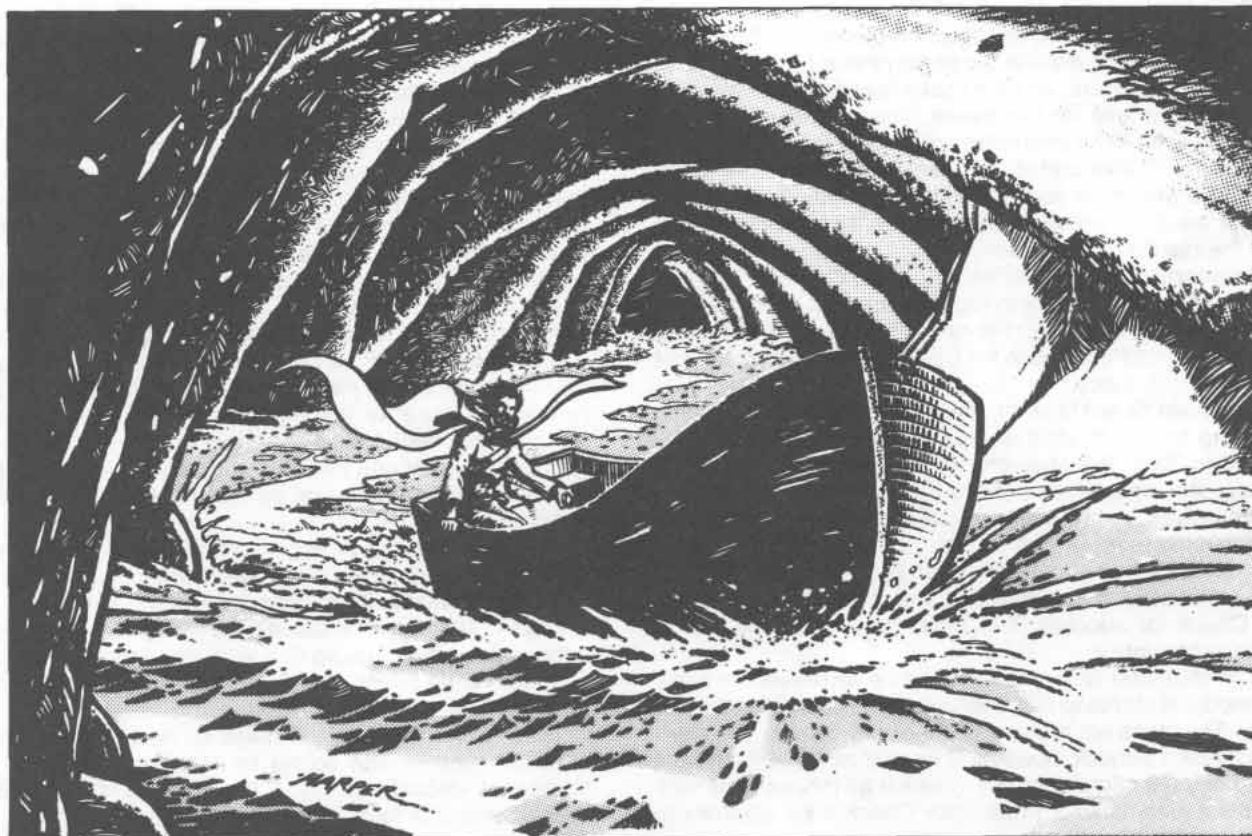
Direction Sense: A character who has cultivated this proficiency has a chance of determining the correct direction in which his party is traveling underground. The character must concentrate for 1d6 rounds and then make a determination.

The DM always makes the Proficiency Check for this proficiency. If the check is successful, it means that the character has determined the proper direction. If the check is unsuccessful but greater than 1, the roll is off by up to 90 degrees to the left or the right (DM's decision). If the Proficiency Check is a 1, the character determines a direction that is exactly opposite of the true direction.

Endurance: A character with endurance proficiency is able to perform physical activity longer than a normal character, without succumbing to fatigue and exhaustion. This proficiency doubles the length of time that a character can exert himself before the effects of fatigue and exhaustion set in.

Fire-building: A character with fire-building proficiency does not normally need a tinderbox to start a fire. Given some dry wood and small pieces of tinder, he can start a fire in 2d20 minutes. Flint and steel are not required. Wet wood, high winds, or other adverse conditions increase the required time to 3d20 and a successful Proficiency Check must be made to start a fire.

Fishing: The character with this proficiency is skilled in the art of fishing, both with a hook and line and with a net. For each hour that the character spends fishing, he can make a Proficiency Check. Failure means that no fish are caught. A successful check means that at least one fish is caught. To determine the number of fish, subtract the character's d20 roll from his Wisdom score.



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One fish provides 1/2 of the daily rations needed to feed a single character. The DM can modify this amount to reflect the sizes and types of fish that are caught. Of course, if an area contains no fish then none are caught, regardless of the character's rolls.

The DM can also modify the time required for the Proficiency Checks to reflect how many fish are in the area. The check might be made every turn, for example, in a crowded pool, while it might only be allowed after six hours of fishing in an area where the fish are few and far between.

Fungus Identification: This proficiency is very useful on extended underground expeditions where characters intend to live off the land. Fungi are the only plants that commonly grow underground, and approximately 50% of all fungi discovered there are deadly poisonous. For this reason, an edible fungus harvest is virtually impossible without the aid of a character proficient in fungus identification.

If the character has plentiful light and an opportunity to study the fungus in question for one turn, no Proficiency Check is necessary. However, if the character is unable to see the fungus clearly, or must make a hasty decision about whether or not it is edible, the check must be made.

Healing: A character with this proficiency can be a valuable member of any adventuring party, although the healing proficiency is in no way a substitute for a cleric's restorative spells.

If a character with healing proficiency tends to a character's wounds immediately (within one round) after they have been inflicted, and makes a successful Proficiency Check, the wounded character recovers 1d3 hit points. If the character with healing proficiency tends to a character's wounds regularly, that character can recover lost hit points at the rate of one point per day, even if he does not rest completely. Under the ministrations of a healer, a character at complete rest can recover hit points at the rate of two per day.

A healer can also attempt to aid a character who has been poisoned by venom injected through the skin, such as from the bite of a poisonous snake or the strike of an assassin's venomous dagger. If the healer can aid the stricken character immediately, the character's saving throw vs. poison receives a +2 modifier. However, the character making the saving throw must remain at complete rest for one turn, and the healer is completely occupied with ministering to him for five melee rounds. These time constraints apply even if the character would have made the saving throw normally. If the wounded character is forced to move or the healer's ministrations are somehow interfered with, the character must make another (unmodified) saving throw vs. poison, and abide by the results of that check.

Mountaineering: This proficiency allows a character to climb with the aid of spikes driven into rock. A proficient character can use spikes as described under the rules of climbing. The character also gains a +10% bonus to his Climbing Rating for each slot spent on this proficiency.

Riding: Those skilled in riding are proficient in the art of riding and handling horses or another type of mount. When the proficiency slot is filled, the character must declare which type of mount he or she is proficient in. Possibilities include griffons, unicorns, dire wolves, and virtually any creatures used as mounts by humans, demihumans, or humanoids.

A character with riding proficiency can perform all of the following feats, some of them automatically, and others requiring a Proficiency Check for success. The exact nature of each feat is described separately.

1) The character can vault into a saddle whenever the horse or other mount is standing still, even when the character is wearing armor. This does not require a Proficiency Check. The character must make a check, however, if he wishes to get the mount moving during the same segment in which he landed in its saddle. He must also make a Proficiency Check if he attempts to

vault into the saddle of a moving mount. Failure indicates that the character falls to the ground—presumably quite embarrassed.

2) The character can urge the mount to jump tall obstacles or leap across gaps. No check is required if the obstacle is three feet tall or less, or is less than 12 feet wide. If the character makes a Proficiency Check, the mount can be urged to leap obstacles up to seven feet high, or jump across gaps up to thirty feet across. Success means that the mount has made the jump. Failure indicates that it balks, and the character must make another Proficiency Check to see whether he retains his seat or falls to the ground.

3) The character can spur his steed on to great speeds, adding six feet per round to the animal's movement rate for up to four turns. This requires a Proficiency Check each turn in order to see if the mount can be pushed harder. If the initial check fails, no further attempts can be made, but the mount can move normally. If the second or a later check fails, the mount immediately slows to a walk, and the character must dismount and lead the animal for a turn. In any event, after four turns of racing, the steed must be walked by its dismounted rider for a turn.

4) The character can guide his mount with his knees, allowing him to use weapons that require two hands (such as bows and two-handed swords) while mounted. This feat does not require a Proficiency Check unless the character takes damage while so riding. In this case, a check is required and failure means that the character falls to the ground and sustains an additional 1d6 points of damage.

5) The character can drop down and hang alongside the steed, using it as a shield against attack. The character cannot make an attack or wear armor while performing this feat. The character's Armor Class receives a bonus of +6 when this maneuver is performed. Any attacks that would have struck the character's normal Armor Class are considered to have struck the mount instead. No Proficiency Check is required.

6) The character can leap from the back of his steed to the ground and make a melee attack against any character or creature within 10 feet. Due to the difficulty of the feat, however, the player must make a Proficiency Check with a -4 modifier to succeed. On a failed roll, the character fails to land on his feet, falls clumsily to the ground, and suffers 1d3 points damage.

Rope Use: This proficiency allows a character to accomplish amazing feats with rope. A character with rope use proficiency is familiar with all sorts of knots and can tie knots that slip, hold tightly, slide slowly, or loosen with a quick tug. If the character's hands are bound and held with a knot, he can make a Proficiency Check (with a -6 penalty) to escape the bonds.

This character gains a +2 on all attacks made with a lasso. The character also receives a +10% on all Climbing Checks made while he is using a rope, including attempts to belay companions.

Slow Respiration: A character with this proficiency has the ability to enter a deep trance and greatly reduce the amount of air he needs to stay alive. In order to induce the trance, the character must be in a restful position, either sitting or lying down. After concentrating for one turn, the character's pulse and breathing rate drop well below normal, so that he uses air only 10% as fast as when resting.

The character can emerge from his trance at will. He is fully aware of anything happening nearby while the trance is in effect.

Sound Analysis: This proficiency allows a character to gauge the size of underground areas by creating noise and judging the echoes that return. Using this skill, the character can calculate distances of up to one mile. The proficiency can also be used to determine the direction of a sound.

To use sound analysis, the character must work in conditions of absolute silence. The sound he creates must have a sharp, somewhat staccato quality. A howl or wail is ineffective, but a clicking sound or loud "hey" works well.

When this proficiency is used, the player must make a Proficiency Check. If the check is successful, the character has correctly analyzed the size of the area in question, within the following margin of error:

Length: + or - 30%

Width: + or - 25%

Height: + or - 25%

If the check fails, the echo has become garbled in the course of its reverberations. No further attempts to analyze the same area by that character will be successful. Other proficient characters may still try their luck, however.

A Proficiency Check of 5 or less means that the character has learned not only the size of the analyzed area, but additional details about it as well. The DM should tell the player which aspects of an area it is possible to learn about in this way. Examples include the number of side passages branching off the analyzed area, a sense of whether the area runs straight or winds around considerably, or even if the area contains a body of water.

An obvious disadvantage of this ability is that while it is most useful for learning about an area totally new to the PCs, using it announces the presence of the party. Creatures hearing sound analysis used will certainly be prepared for some kind of intrusion and might even go looking for the perpetrators. This proficiency can be used in conjunction with the animal noise proficiency.

Swimming Proficiency: The swimming proficiency is fully detailed under the swimming rules on page 12.

Experience Points for Proficiencies

Use of proficiencies by player characters does not result in experience point awards. Since PCs spend their lives adventuring, any uses of nonweapon proficiencies serve primarily to augment the adventuring, and thus do not warrant experience awards.

Non-player characters who make a living through the use of nonweapon proficiencies may gain experience points from proficiency use, in order to go up in level. Such characters should gain 1d4 hit points for each level. The primary purpose of advancing is to gain additional proficiency slots, and the NPCs can thus improve their performance as their careers advance.

If NPCs are advanced this way, simply use the level advancement table for fighters to determine the intervals between each level. The NPC should gain one experience point for every two gp of income netted by his business.

This system may require that the DM keep careful records for a large number of NPCs. As with many things, it might be easier to simply assign these characters additional levels of ability as time goes by, without recording each NPC's actual income.



COMBAT RULES FOR UNDERGROUND PLAY

The following combat rules cover the special types of problems that can occur while running combat in an underground environment. While the AD&D® rules handle most situations relating to underground combat (this is, after all, the most common setting for play), certain of the following unusual situations will probably occur as characters penetrate farther underground and remain there for longer times.

Specifically, this section introduces rules for melee and missile combat in unusual underground terrain—while a character is suspended midway up a sheer wall, for example, or poised atop a narrow bridge. And what if a swimming character gets attacked? Additional clarification of the effects of darkness follows. The section closes with some instructions and modified rules for use of the AD&D BATTLESYSTEM™ Fantasy Combat Supplement in the constricted conditions of the underearth.

Fighting on Walls and Other Sheer Surfaces

The movement rules provide a means for all characters to scramble up and down sheer surfaces to a limited extent, but engaging in combat while suspended on these surfaces is another matter entirely. Characters who engage in melee or missile combat while on a sheer surface suffer penalties to combat abilities, and have an increased chance of falling during the fight.

When climbing, a character loses all bonuses to his Armor Class that would come from a shield or Dexterity bonus. If the character's face is toward the surface, he presents his back to any attacker except one that is next to him on the wall, with the attendant penalties.

Additionally, such a character can only face a foe to one side or the other. Since at least one hand is needed to hold on, the character cannot use multiple weapons. Finally, a -2 penalty is assessed to all of the character's attack, damage, and save rolls.

If combatants are above or below their opponents during a fight on a wall, specific modifiers apply. The higher character gains a +2 "to hit" modifier in addition to all other modifiers that apply, while the lower character suffers a -2 modifier to his attack rolls.

If, in the DM's judgment, the character can reach a place of some security before engaging in combat, some or all of these penalties may be cancelled out. An archer who carefully selects a ledge from which he can easily see his targets and draw his bow should be able to fire normally. Likewise, a swordsman firmly balanced on a large boulder should have an advantage over opponents who are scrambling up to reach him.

When a character on a sheer surface is struck for any amount of damage, the character must make an immediate Climbing Check. If the check succeeds, the character remains in place; if it fails, the character falls. A -10% modifier applies to the check if the damage inflicted by the attack is equal to or greater than 1/2 of the character's total hit points (rounded up).

Creatures defending a wall or cliff often roll or drop heavy objects onto attackers below. An average-sized boulder (three feet in diameter) inflicts 2d8 points of damage to anyone it strikes. All victims are treated as AC10 for purposes of these attacks. If the creatures dropping the missile are unable to pick it up and

hurl it (as a giant could), they suffer a -8 modifier to their attack roll. If the victims are climbing a sheer cliff, they could be knocked off by this attack, as given above.

Fighting on Bridges and Ledges

The situations covered in this section all assume that a character has enough room to stand somewhere without using his hands to hold on. This rule is applied if some sort of drop-off is located within five feet of the character.

All of the difficulties associated with this type of combat relate to hits against the character; there are no penalties for attacking in this situation.

If a character gets hit by any attack that causes a loss of hit points or consciousness (such as a *sleep* spell), he must make a successful Dexterity Check to avoid falling over whatever drop-off is nearby. The character's Dexterity, for purposes of this check, is increased by two for every foot of distance between the character's feet and the drop-off.

The character's Dexterity should also be modified if the force of the blow pushes him toward or away from the drop-off. In melee combat, a character with his back to a wall receives a +2 modifier to his Dexterity, while a character with his back to a drop-off receives a -2 penalty. During missile combat, the path of the missile serves as a good indicator of whether a character is pushed toward or away from a drop-off.

For example, a character who is standing on a narrow bridge and is struck by an arrow fired from his left side will obviously be propelled toward the drop-off on his right. A character fighting on a ledge, on the other hand, with his back to the wall and his enemies before him, is pushed back toward the wall by the force of any blow.

The modifier for such situations is a + or -2 to the character's Dexterity, applied in addition to all other modifiers.

Grabbing an Enemy

If a character is fighting in extremely close quarters and falls from either a sheer surface or a narrow ledge or bridge, he can sometimes drag his opponent along with him. This rule is only used when at least one of the characters is fighting with a weapon of less than two feet in length, or when the characters are grappling.

A character who falls while engaged in such a fight can make one attempt to grab his enemy as he falls. The character must roll a normal attack roll on 1d20, and get a result that would hit the other character. The target character receives no benefit for armor or shield. He is AC 10 minus Dexterity bonuses. No magical bonuses for weapons apply to this attack roll; in fact, any weapon held must be dropped for the attempt to be made.

If the attack roll is successful, the character has grabbed some part of his opponent's body. The character who has been grabbed must roll a Climbing Check (if on a wall) or a Dexterity Check (on a ledge or bridge) to see if he accompanies his opponent in the fall. If the check is successful, the grabbed character retains his position, with his opponent clinging tenuously to his leg (or whatever). If the check fails, both characters plummet to



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the fate that awaits them below.

If the characters do not fall, the fight continues. The character who is hanging onto his opponent cannot make any attacks. Instead, he can make a Climbing Check (with a -20% modifier) to see if he can regain his hold on the wall or his footing on the ledge. If this check is successful, the character has regained his place; if unsuccessful, he remains clinging desperately to his opponent. The opponent, meanwhile, can attack the clinging character normally. Any successful hit requires the victim to make another Climbing Check with a -20% modifier. Failure means that he falls and his opponent remains on the wall.

Of course, if anything else causes the character who is retaining his hold to fall, both characters fall. Even if characters are grappled together when they fall, they separate immediately. Thus, a magic-user might be able to cast a spell before hitting the bottom, while his less fortunate opponent plummets to a hard landing.

Characters occasionally fight creatures that do not have Climbing Ratings or Dexterity Scores. In these cases, the DM should assign a Climbing Rating to the creature based on its natural abilities or lack thereof. Monkeys, spiders, and other natural climbers should fall into the 80-95% range, mountain goats and llamas might rate a 70%, and clumsier creatures could rate as low as a 0.

Fighting in Water

Water interferes with the fighting effectiveness of characters and creatures not bred for that environment. If characters are standing in water that is less than waist deep, none of these combat penalties apply. If the water is waist deep to chest deep, the penalties are halved. If the characters are swimming or standing in water that rises higher than their chests, however, the penalties are fully in effect.

Attacks by creatures not at home in water suffer a -4 penalty on the 1d20 roll used to make the attack. If successful, such an attack suffers a -4 modifier to the amount of damage that it would normally inflict. Damage thus modified can be reduced to no less than 1 point.

Any creature that spends part of its life in the water, or any character with swimming proficiency, is not penalized while fighting in the water.

Grappling in Water

This modification is suggested for use with the Weaponless Combat System II listed on page 106 of *Unearthed Arcana*. Using these rules, characters can attempt to pull their opponents underwater and hold them under until they drown.

A grappling-in-water attack can only be successful in water that is at least as deep as 1/3 of the victim's height.

A character attempting to grapple an opponent in the water can make the attempt without the penalties that would apply to an attack with a weapon. If the grapple is successful, both players go under the surface of the water. The character who performed the grapple is assumed to have taken a deep breath of air (as per the swimming rules) before going under. The grappled character must make a saving throw vs. paralyzation to get such a breath of air; otherwise, the character is assumed to have been dragged under before he could take a breath.

The characters remain underwater until the hold is broken, as explained on page 108 of *Unearthed Arcana*. See the Holding Breath section (on page 12) for the length of time a character can hold his breath.

Fighting in Narrow Passages

A common defensive barrier in caves is the bottleneck passage where only one or two characters can hold off a mob of attackers. Pages 69 and 70 of the *DMG* provide players with a description of how much combat frontage one individual occupies. This tactic limits the number of enemies that can attack at once.

This bonus is of course usable by monsters and NPCs as well. It reflects the fact that a fighting individual can use such a location defensively, as protection from the enemy's attacks, or aggressively, as a means of striking the enemy at an advantage.

The side claiming the bonus must have sufficient room for all fighting individuals to use their weapons without interfering with each other.

Fighting in Darkness

Characters who cannot see in the dark run serious risks when participating in combat under these conditions. Such characters suffer a -4 penalty to all attack rolls, saving throws, and damage rolls, as well as a +4 penalty to Armor Class. Even with this penalty, a successful attack cannot cause less than 1 point of damage. Also, all bonuses that require a character to see his victim are forfeited. These include such abilities as a ranger's bonuses against giants, a thief's *backstab* attack, and a *vorpal sword's* beheading function.

Not only do characters who are unable to see have greatly reduced chances for success in combat, but they stand a chance of wounding an ally or striking some other obstacle in the darkness, or encountering treacherous terrain features such as cliffs, pits, or pools.

These penalties do not apply to characters with infravision, nor to those wielding magical weapons or within range of any source of light.

If a character who cannot see is within twice his weapon length of any ally, other opponents, walls, chairs, or other obstacles, his attack stands a chance of striking one of these instead of his target. If the attack roll misses with a modified result of 0 or less, the attack has unintentionally struck another object. Any object closer to the character than twice his weapon's length may be hit. Count up all the objects within the weapon's reach, then roll randomly to determine which is hit.

In addition, if a character who cannot see fights next to a drop-off or on a sheer surface, his Dexterity is reduced by two for purposes of all Dexterity Checks to see if he falls over the drop-off, and his Climbing Rating is reduced by 10% for purposes of all Climbing Checks.

Spellcasting in Darkness

If a spellcaster cannot see the target of his spell, there is a chance that the spell might affect something besides the intended target.

In these situations, the player must indicate exactly where the spell is targeted. The DM then makes a secret roll on Table 9: Course Changes in Darkness to determine where the spell really goes off. If the spellcaster has a clue to the location of the target (noise or smell, for example), the DM may assign a -1 to -3 modifier to the roll on Table 9.

Rules for Mounted Combat

Although the sweeping charges of vast ranks of cavalry are not as common in the realms of the Underdark as upon the surface,

many of the races living beneath the surface maintain a stable of appropriate mounts. When battles or skirmishes are fought, the role of the mounted warrior is different from that of his walking companions, just as in surface warfare. Fighters of the Underdark who are trained to ride a steed into combat practice their skill every bit as much as their counterparts on the surface, and make just as effective a fighting force.

In order for a steed to function as a mount during combat, it must have been trained for this task, and must be of a species appropriate to such combat. Mules, for example, are inappropriate combat mounts because of their lack of speed, maneuverability, and fearlessness. Although horses can be trained to fight in underground conditions, they rely heavily on the sense of sight, and are unusable in situations of total darkness.

Steeded that may be employed by the races of the Underdark include such creatures as griffons, nightmares, dire wolves, giant striders, giant lizards, and rothe. Horses are used if illumination permits, and are especially favored for raiding parties that venture onto the surface during the dark of night.

A mounted character wielding a melee weapon has certain advantages over his opponents who are on foot. The mounted character's height advantage serves to protect him from the opponents' attacks, and gives him an advantage when he attacks. This advantage translates into a +1 modifier on all attack rolls made by a mounted character against an opponent who is not mounted. When the character standing on the ground makes an attack, any roll that exactly equals the number needed to hit strikes the mount instead of the mounted character. This procedure is only used if the rider is the intended victim; a character can always choose to attack the mount instead of the rider.

Mounted Missile Fire

Mounted bowmen can create a formidable force, combining speed with the ability to attack from a distance. Often, a mounted archer can ride close to his enemy, shoot an arrow, and ride away again before the enemy can react.

Any character can fire a bow from a mount that is not moving, without negative modifiers. In order to shoot from a moving steed, however, the character must have both horsemanship proficiency and a bow weapon proficiency. This is required because the character needs both hands to fire the bow, and thus must guide his mount with his knees. The DM can rule that a given type of terrain, because of steepness, slipperiness, or very rough ground, requires the character to hold the reins, and thus prevents mounted bow fire.

Shortbows, composite shortbows, and light crossbows can all be fired by mounted characters, but the rate of fire is less than when unmounted. A character who normally makes attacks at a rate of 2/1 will fire at a rate of 1/1 when mounted. A rate of 3/1 becomes 3/2, etc. The character also suffers penalties to hit, based on the speed of the mount at the time the attack is made, as shown on Table 14: Mounted Bow Fire.

Table 14: MOUNTED BOW FIRE

Mount's Current Movement	Modifier to hit
Less than 1/2 normal	-1
1/2 to less than 3/4 normal	-3
3/4 to maximum speed	-5

These modifiers are cumulative with all others that apply.

During the round he fires, the rider cannot perform maneuvers with his mount, except for slight turning. The most the mount can turn is 45 degrees to either side of its current direction. Sharper turns and complicated maneuvers require the character to hold on, and prevent the use of a bow.

These rules apply to riders on all types of mounts. If the steed is flying, additional penalties apply as listed in the *DMG*, page 53, under Aerial Missile Fire.

Forcing Opponents to Dismount

Although the mounted warrior gains a few advantages over his opponents on the ground, special tactics have evolved to allow those opponents to even the odds somewhat. The most straightforward approach is to try to knock the rider off his mount. This more than evens the odds, since the rider is generally stunned, injured, or at the very least, prone after falling from his mount.

There are several methods for dismounting an opponent, some of which are heroic and others that are merely grim and efficient. By far the most direct is to slay the mount. Once the steed has been killed, the rider finds himself on foot, and often is caught off balance. The disadvantage to this approach is that the mount is no longer useful to anyone. In many cases, it is more beneficial to try to remove the rider and capture the steed.

If a steed is killed while a character is mounted upon it, the character automatically falls to the ground. If the character has horsemanship proficiency (see the proficiency rules on page 23), he is entitled to make a Proficiency Check to see if he lands on his feet. If the check is successful, the character remains upright and can continue to act normally, even attacking that same round if he has not attacked yet. If the check fails, or if the character does not have horsemanship proficiency, he falls to the ground and suffers 1d3 points of damage. The character can perform no further functions that round, and must spend the entire next round climbing to his feet.

Often, combatants attempt to bring a rider down without killing the steed. Some weapons are more effective than others at accomplishing this. Anytime a rider is struck by a melee weapon of three feet or greater length wielded by another mounted character, and the attack roll is a natural 20, there is a chance that the victim is knocked from his mount. If the rider does not have horsemanship proficiency, he is automatically knocked to the ground, and suffers an additional 1d3 points of damage. If the character does have horsemanship proficiency, he is allowed to make a Proficiency Check. If the roll is successful, the rider retains his seat with no ill effects (beyond the damage caused by the attack). If the roll fails, the character falls with the effect previously noted.

Fighters on foot who are armed with weapons of five to nine feet in length have the same chance of unhorsing riders as mounted attackers do—and riders have the same chance of remaining in the saddle in both instances. Foot soldiers using weapons of 10 feet or greater lengths have a 25% chance of dismounting riders (a roll of 16-20 on the attack roll). Again, riders with horsemanship proficiency are allowed to check to see if they can remain in the saddle.

Riders can also be pulled from their mounts by both mounted and unmounted attackers. A mounted attacker can attempt to dive on another rider by moving adjacent to him and leaping from the saddle. If he makes a successful attack roll, he has grappled the other rider. If not, he falls to the ground and suffers 1d6 points of damage. If the attack is successful, the grappled rider may be allowed a check against his horsemanship proficiency. A successful check means that the grappled character remains in the saddle with the other character hanging from his side. If the roll is not allowed, or fails, both characters fall to the ground and sustain 1d6 points of damage.

If the rider remains mounted with his attacker clinging to him, the procedure is repeated in subsequent rounds. In order to keep his place, the attacker must successfully roll to hit; if he does so, the rider must make another Proficiency Check to remain in the saddle. A rider can use a weapon to attack a grappling opponent, but all such attacks are made with a -2 modifier to hit.

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Characters and creatures on foot can also attempt to pull a rider from his horse, although this is not an easy task. The attempt can only be made by creatures that are man-sized or larger. Those larger than man-size count as two men for the attempt.

First, the character on foot must grab the rider as he passes by. To do this, he makes an attack roll, modified by the speed of the mount. If the steed is moving at 6" per round or less, the attacker's chance to hit suffers a -2 modifier. If the steed is moving at 7" to 12" per round, the modifier is -4, and at speeds greater than 12," the modifier is -6. If the hit is successful, follow the same procedure as if the rider had been grappled by a mounted opponent. If the attempt is unsuccessful and the steed is moving faster than 12" per round, the steed is allowed a free set of attacks against the character on foot.

For each additional footman grappling (up to 4), -1 is applied to the rider's Proficiency Check. If the rider is pulled from his mount by more than one person, he suffers no damage, since his opponents actually cushion his fall. If the mount is surrounded by eight man-sized, or four large creatures, both the mount and rider can be pulled down. During this combat, both the mount and the rider are allowed their normal attacks.

Finally, given time and material, set defenses can be prepared to dismount riders and stop horses. Most of these are simple tricks and traps, such as a rope hung between two columns at the rider's height, a trip wire, etc. The DM determines the chance of success for these types of traps. For defense against mounted attackers, sharpened stakes can be set in the ground. It takes two characters one hour to prepare a 10-foot-square area with stakes of about four to five feet in length, provided that there is a supply of saplings, light wood, or spears to use as stakes. These defensive areas are easily spotted, and can be avoided if there is an alternate route.

If a rider wishes his mount to enter such an area, the player must make a horsemanship Proficiency Check, just as if he were trying a jump or leap. Failure means that the mount refuses to enter the area, although it continues moving in another direction if possible. If the check succeeds, the mount enters the defended area and hits 0-3 (1d4-1) stakes for each 10-foot-depth of the defenses. Barding reduces the number of stakes that hit by -1 for chain mail barding, and -2 for plate barding. Each stake causes 2d6 points of damage to the mount, whether or not the steed was charging at the time.

BATTLESYSTEM™ GAME OPTIONS UNDERGROUND

The AD&D® BATTLESYSTEM Fantasy Combat Supplement contains combat rules for large groups of creatures engaging in battle. Such battles are every bit as common underground as they are on the surface. Whether a group of characters is leading an armed expedition to the underearth, or two subterranean races are vying for control of a key section of tunnels, mass combat can be an instrument of every underground campaign.

Because of the constricted nature of the underground environment, a whole new set of tactics is necessary for warfare in the underearth. In addition, darkness and restrictions on flying create situations not commonly encountered above ground.

These optional BATTLESYSTEM rules are designed for the unusual battlefields of the underearth. They also serve to clarify other types of combat, such as indoor or house-to-house warfare. If all players are agreeable, these rules can be employed during any BATTLESYSTEM scenario.

Extremely Narrow Frontages

Underground battlefields often possess terrain bottlenecks that allow a single 1/2" or 3/4"-wide figure to hold a gap against a long column of attackers. Designed for combat between several figures at a time, the BATTLESYSTEM rules should be modified if only one or two figures face each other in combat.

Combat Modifiers

When the dice of damage delivered to a figure is calculated, mark a figure as wounded if 10% or more (as opposed to 25% or more in the standard rules) of the figure's Hit Dice are removed. Thus, an orc figure representing 10 orcs (with a total of 10 Hit Dice) is marked wounded if an attack inflicts 1-9 dice of damage to it. If the attack inflicts less than one die of damage, the orc figure is not affected. If the attack inflicts 10 or more dice, the figure is removed.

Formation Modifiers

Movement through winding tunnels and narrow passages is difficult for military units in formation. Therefore, such units generally move as long, thin columns. This *column formation* has the following characteristics:

- * A column formation is displayed as a line of figures, one figure wide and as long as the number of figures in the unit.

- * A column formation is considered to be in its leader's command radius if the figure at its head is in the leader's command radius.

- * A column pays no movement penalty for changing facing; as the tunnel winds around, the column winds around with it and can still move a distance equal to its movement rating.

- * A unit in column formation is considered in open formation for purposes of morale checks.

Often a tunnel is too narrow to allow a figure to actually occupy it. Remember that the BATTLESYSTEM game scale is 1" equals 10 yards—not even a 1/2" halfling or kobold figure could normally occupy a 10-foot-wide corridor.

Of course, the individual creatures making up the figure can still fit into the area, so the figure is assumed to change its shape to fit into such tight confines. Thus, the figure actually occupies more space front to back than it does from side to side.

This condition requires the figure to occupy twice as much space lengthwise as it normally would. The extra space is always considered to lie to the back of the figure. Thus, a 3/4" figure in a 1/3" corridor can be placed adjacent to an enemy figure in front of it. If another figure, either friendly or enemy, approaches from the rear, it can only move to within 3/4" of the original figure.

This restriction can affect column formation as well: If a column, or a portion thereof, occupies a corridor that is narrower than the figures in the column, these figures must be placed twice as far apart as they normally would, doubling the length of the column.

Morale Effects

Units in closed formation can suffer harmful morale effects if forced to break into open formation in an area where they do not have sufficient room. If a closed formation unit must break into open formation for any reason, it can expand to the sides or to the front or rear. If it does not have enough space to expand fully in at least one direction, however, it automatically routs.

If a routing formation is prohibited from performing its routing movement because of the presence of a friendly unit (if there is no possible retreat path around the unit), the unit blocking the path of retreat is automatically routed. This automatic routing can turn into a chain reaction of whatever length is required to clear a path for the routing units.

Ventilation Effects

If an underground battlefield is subject to unusually good air circulation by natural or manufactured means, the provisions of the following rule should not be used. In most cases, however, air circulates much more slowly underground than it does in the outside world. Consequently, it takes much longer for the effects of gases and smoke to disperse.

Any poisonous gas lasts much longer in an underground setting. The duration of all such gases is doubled when released underground. In addition, the smoke caused by fires can create a major problem underground. See the Underground Environment section (page 36) for a description of smoke effects upon creatures and characters.

If a gaseous spell effect is in a windy area, but the area is relatively small, the gas can be moved by the wind and still retain its potency. This can only occur in a tunnel or passageway that is no more than 1/2 the diameter of the spell's area of effect. If this is the case, wind blowing through the cave does not disperse the gas until twice the normal duration of the gas. In addition, the gas is carried along by the wind and affects all susceptible creatures in its path.

Flying Effects

While the dimensions of many underground battlefields prohibit the use of flying creatures, certain extraordinary caverns and realms are large enough to allow flight.

If an area has a ceiling of 240 feet or higher, use the normal BATTLESYSTEM™ flight rules. Remember, however, that a flying creature might not be able to escape the battlefield by flying up and away.

If the ceiling in an area falls between 60 feet and 240 feet, use the normal flying designations of low, medium, and high altitudes. Alter the actual heights, however, so that low altitude covers the bottom third, medium the middle third, and high the upper third of the available flying space.

If the ceiling is greater than 30 feet but less than 60 feet, only medium and low altitudes are used. Again, the available flying space should be evenly divided between the two elevations. Ceilings lower than 30 feet allow only low-level flying creatures to take flight. It is important to remember that flying underground is very tricky and maneuverability is critical.

Line-of-Sight Effects

If a battle is fought in the inky blackness of the underearth, the effects on vision are even more extreme than those listed for Night Battles [BATTLESYSTEM game case 12.5]. Unless fire, magical light, or a patch of phosphorescence somehow illuminates the field, creatures without infravision are at a great disadvantage.

Creatures without infravision fighting in darkness suffer a penalty of +6 to the unit's Attack Rating. This penalty reflects the combined effects of -4 to attacks and damage applied to blinded creatures. In addition, the saving throws of such individuals are affected by a -4 penalty, and the Armor Class of the creatures is raised by four against all melee attacks. The movement rating of such a unit is reduced to 1/3 of its original.

If a unit that is unable to see encounters any sort of unexpected

obstacle such as a pit, pool of mud, or anything else that could trap the leading rank, the entire first rank of the unit is automatically affected by the obstacle. This accounts for the fact that, even at a slowed movement rate, the first individuals in a unit are not able to communicate information about an obstacle before the ranks behind push them into it.

If torches, *light* spells, or any other source of illumination is employed to aid a unit in finding its way around the battlefield, some or all of these penalties are cancelled. At least one light source must be employed for each figure in the unit in order to negate the penalties. Thus in a unit of 24 figures, at least 24 individuals must be equipped with torches or magical sources of light.

A unit that is carrying its light source moves at its normal rate. It performs melee attacks normally and makes saving throws with the usual percentage chance of success. The unit cannot fire missiles at targets that it cannot see, however, nor can it initiate a charge against a unit that is out of its range of vision.

Moreover, a unit thus illuminated is easily seen by all forces on the field. If missiles are fired against it, the Attack Rating of the missile-using troops receives a +2 benefit in addition to any other modifiers that apply.

Skirmishers can find valuable employment in such battles by advancing before a formation with torches and illuminating an enemy unit or target, or by marking the terrain for a unit soon to come that way. In addition, because they are spread so, skirmishers with torches do not suffer the +2 penalty against them when fired at with missile weapons.

Cave-ins On a Battlefield

Because of the massive weight of stone looming over the heads of the underground combatants, spells and other effects that can bring this weight crashing down on foes are in high demand. The damage wrought by such a collapse is devastating.

Spells such as *earthquake* and *transmute rock to mud* are commonly used for this purpose. If a ceiling collapses, the area affected on the ground is the same as the area of the ceiling collapsed, plus 1" in all directions. Such a collapse does 6d8 hit points of damage to all creatures in the area of effect; a saving throw vs. spell reduces the damage to half. Thus, an orc figure representing 10 orcs suffers 60 dice of damage, and is automatically destroyed whether it saves or not.

A similar weight of mud falling on a unit inflicts only 4d8 points of damage, again halved if the saving throw is successful.

An additional hazard of underground battle is that of unstable bridges, ledges, or other rock formations subject to unusual stress when large numbers of heavy creatures move across or next to them. The exact nature of the threat posed by such activity is left up to the DM's discretion. However, along with bridges and ledges, the collapse of narrow columns or arches, and even worn and cracked sections of cavern ceilings, can also be catastrophic.

The base chance of a frail feature collapsing is 1% whenever marching or melee combat occurs nearby. Spells such as *lightning bolt* or *earthquake* can also trigger the collapse. The DM (or neutral referee) should make a secret check whenever stress is applied to a fragile formation. If a formation is checked once and does not collapse, but the resulting d100 roll was less than 25, the chance of the feature collapsing should be raised 4%. This is a cumulative effect, so the feature could grow increasingly fragile as the battle continues. The presence of heavy units, such as heavy cavalry, chariots, or large creatures, *doubles* the chance of a collapse; thus a bridge that has a 13% chance of collapse has a 26% chance if a heavy cavalry unit gallops over it.

The formation's chance of collapsing should also be doubled if an explosive spell such as a *lightning bolt* strikes it directly, or if an *earthquake* or similar effect causes the rock immediately adjacent to the threatened area to collapse.

THE UNDERGROUND ENVIRONMENT

Life underground is drastically different from that aboveground. Most of these differences are shaped by the unique limitations and opportunities of the underground environment. Several blessings most surface dwellers take for granted, such as sunlight and fresh air, are in short supply beneath the surface. On the other hand, water is usually plentiful underground—even below the driest of deserts, if one is willing to go deep enough—and a variety of rock and mineral treasures await the miner who knows where and how to look.

AIR SUPPLY

A particular problem that surface dwellers virtually never face is inadequate air supply. In many underground situations, of course, this is not a problem either: an underground chamber may be so large that even the presence of many creatures does not consume oxygen faster than it can be replaced; or natural or artificially channeled ventilation may insure that old air is steadily replaced with new.

The potential for air supply problems beneath the surface should not be overlooked. If a cave-in occurs, ventilation sources may be cut off; if a chamber is small, it may become so crowded that a meager ventilation system is incapable of replacing oxygen as fast as it is depleted. In any event, air supply is occasionally a factor in underground adventuring.

Duration

Assuming no ventilation whatsoever, a human-sized creature at complete rest depletes the oxygen in 10 cubic feet of air within 24 hours. If the creature performs even moderate physical activity, the duration of air supply is reduced to 12 hours. If the creature spends its time in any kind of strenuous exertion, the duration of the air supply is reduced to a mere six hours.

If a character spends some time engaged in heavy or light exertion and rests at other times, simply calculate the oxygen consumption in multiples of the resting rate. Thus, a character who is working strenuously uses oxygen four times faster than a resting character, and a moderately exercising character uses the oxygen up twice as fast as a character at rest. A character who rests for three hours and then works hard for five hours has used up as much oxygen as he would in 23 hours (3 hours + 4 x 5 hours) of rest.

A DM can apply this ratio to all characters and to any creatures, such as mules or dogs, that accompany them. An accurate duration figure can be achieved by figuring the weight of the creature into human equivalents. A dwarf or elf, for example, consumes 2/3 as much oxygen as a human, while a halfling or a dog uses only half as much. A mule or an ogre, on the other hand, consumes oxygen at twice the rate of a human.

A character does not instantly die when his air supply has been used up, but serious problems arise. Each turn following the exhaustion of the oxygen, the character must make a Constitution Check. Every time the check fails, each of his ability scores and his hit point total are reduced by one. Each additional Constitution Check is made against the reduced Constitution score.

Thus, a character grows more and more feeble as he gulps the last remnants of the oxygen supply. When all of a character's ability scores have dropped to 0, he is unconscious. When a character's hit point total reaches -10, he is dead. Even for a character with a large number of hit points, this fate becomes automatic once the Constitution score reaches 0, since all further Constitution Checks automatically fail. This system is used only for characters in an area with air; it cannot be used for characters who are holding their breath.

If fresh air is introduced to a character before death occurs, he begins to recover immediately. Hit points and ability scores all climb at the rate of three points per turn until the character reaches his original levels in all areas.

Fire

Fire is a more voracious consumer of oxygen than even the most heavily working character, and consequently presents a severe threat to characters in situations of limited air supply. Even a flickering torch can create problems in a small chamber that has little or no ventilation.

A small fire (one foot or less in diameter) consumes all of the oxygen in a ten-foot cubic space in two hours (12 turns). A flaming torch consumes all of the oxygen in the same space in eight hours. Of course, when all of the oxygen is consumed, the fire goes out. The oxygen consumption of larger fires is based on the number of small fires they equal. A fire four times larger than a small fire consumes oxygen four times as fast.

A flask of burning oil does not burn for very long, but uses up a lot of oxygen while it burns. In general, oil in a flask or similar small container burns for three rounds. For purposes of oxygen consumption, however, treat the burning oil as a small fire (as explained above) and treat each round of burning as a full turn. Thus, an oil fire that lasts three rounds uses up as much oxygen as a small wood fire burning for three turns.

Smoke

The smoke that accompanies fires causes additional problems. While fire consumes the oxygen that characters need to breathe, smoke acts as a poisonous gas that fills enclosed areas and is unavoidably inhaled along with any remaining oxygen.

While it is possible to burn extremely dry and flammable materials with little or no smoke, most fires are not this efficient. If any of the fuel for the fire is wet, or if green or living branches, twigs, or leaves are used, smoke is produced. Any kind of burning fabric creates smoke, as does burning oil.

The average amount of smoke produced by a small fire in one turn is enough to create a one-foot-thick smoke layer in a 10 foot x 10 foot square area. The smoke rises to the highest part of a room and collects in a layer against the ceiling. The next turn's worth of smoke collects immediately below the first layer, and so on, until the breathable air is concentrated in the few feet nearest the floor. Finally the entire room fills with smoke and even characters lying on the floor are affected.

An oil fire creates the same amount of smoke as an average fire, except that in an oil fire the rate is calculated by round

instead of by turn. The smoke rate of a larger fire is calculated just as the oxygen consumption, so a fire that is three times as big as a one-foot-diameter fire creates smoke three times as fast.

A character forced to breathe smoke must make a Constitution Check each round that the smoke is inhaled. A failed check means that he suffers 1d6 hit points of smoke damage.

Smoke damage is temporary. If a character has a chance to breathe fresh air, the smoke damage goes away at the same rate that it was acquired—i.e., the character makes a Constitution Check every round of breathing fresh air, with success meaning that he has regained 1d6 points. Although temporary, smoke damage is real in the sense that any other damage taken while a character suffers from smoke damage must be considered cumulative with it. Example: A character who has a total of 33 hit points loses 28 of them due to smoke inhalation. If he gets struck by an orc for 5 points of damage before he has had a chance to regain any of his smoke damage losses, he is killed.

Poisonous and Noxious Gases

Gases can originate from a number of underground sources. Volcanic activity can create deadly emissions of sulphuric gas that are every bit as *poisonous* as the bite of a venomous creature, while garbage or sewage can generate *noxious* gases such as methane whose smells are so overpowering that characters have a difficult time breathing them.

The occurrence of such gases is primarily a campaign function to be handled by a DM at the appropriate time. As in most situations involving poison, *poisonous* gases generally require characters to make saving throws vs. poison. *Noxious* gases should force characters to make Constitution Checks every round; failure results in a general lowering of ability scores by three, with a similar penalty applied to attack rolls. The modern example of tear gas falls into this category. Characters can be rendered quite helpless by the effects of noxious gases (when all ability scores are reduced to 0), but they are not killed because there is no loss of hit points. Ability scores are raised at the rate of three per turn when the character has a chance to breathe fresh air again. Modifiers to the saving throw or Constitution Check can be applied as the DM sees fit, to account for exceptionally lethal or mild poisons or to simulate degrees of noxiousness.

Certain types of gases, such as natural gas, are either odorless or possess such a mild odor that the characters may not be aware that the gas is present until they start making checks or saving throws. Other types of gases, such as sulphur, carry such a strong odor that the characters might have a chance to hold their breath before the full force of the gas can take effect.

Natural gas, often encountered in regions where coal and oil are common, has the additional hazard of being explosive. If characters encounter natural gas and are carrying a torch, candle, lantern or any other source of open flame, the natural gas has a base 20% chance per round of exploding. Such an explosion causes 1d6 points of damage to all characters and creatures in the area with the gas. Characters entering a region containing natural gas in such quantities might be allowed to make Wisdom Checks if they are moving slowly and investigating their surroundings carefully.

More heavily concentrated natural gas, or other types of explosive gases, are possible. The DM can modify the gas's chance of exploding and damage inflicted upward as follows: each 10% increase in the chance of explosion adds another d6 to the damage inflicted to the characters. Higher concentrations should also increase the characters' Wisdom scores by 1 per 10% potency increase, for purposes of this Wisdom Check only.

Note that if a gas is completely odor-free, no Wisdom Check should be allowed, since the check represents the character's awareness of the gas's odor and an odorless gas gives no oppor-

tunity for a check.

Any gas, whether poisonous, noxious, or harmless, can cause problems to characters by replacing the oxygen in a given area. In this case, the effects should be treated as if part or all of the oxygen in a location has been used up, as explained earlier.

Certain creatures, most notably small birds, are more sensitive to poisonous gases than humans and other character races are. If, perchance, a party has a small bird with them and becomes exposed to a gradually increasing amount of poisonous gas (not including noxious gases), the DM should make a secret saving throw vs. poison for the bird one turn before the characters must save. The bird saves as a 0th-level human, and if the saving throw fails, the bird dies.

Note that this procedure is of little help if gas is suddenly introduced to an area in high concentration. The party must encounter a gradually increasing amount of gas in order for a bird to provide any early warning.

Ventilation

Ventilation of an underground area depends on several factors. Chief among these is fresh air flowing into and through the area. Any underground chamber with a noticeable airflow is considered well-ventilated. Smoke does not accumulate in such an area, nor is the oxygen exhausted by characters breathing or by fire. The duration of all gas-based spells is halved in such an area. Poisonous or noxious gases remain in a ventilated area for two turns unless more of the gas is introduced.

More subtle air movement can be detected by the flickering of a torch or candle. Even when characters cannot discern this movement through their own sense of touch, fresh air for breathing is not a problem in these areas. Gas-based spells linger for their normal durations, and poisonous or noxious gases remain effective for one hour.

Smoke from small fires or torches does not accumulate in moderately ventilated areas, while smoke from large fires or from burning oil only accumulates at 1/2 the rate listed for enclosed areas.

Some areas appear to contain no ventilation, but are actually connected either to ventilated areas or to the earth's surface. No matter how long or winding the connecting passages may be, these areas collect smoke from small fires at 1/2 the rate previously listed. Large or oil fires fill the area with smoke at the usual rate. Characters do not use up all of the air through breathing; even this minimal amount of ventilation allows enough air movement for respiration. Poisonous or noxious gases remain in such an area for 2-5 hours (1d4 + 1). The duration of all gas-based spells is normal.

An area that contains no noticeable ventilation and has no place for smoke to flow out horizontally or upward captures smoke at the normal rate (even from small fires). Poisonous or noxious gases, unless specifically noted as being heavier than air, remain in such an area for a full 24 hours.

Areas that are completely sealed off from any outside passages, either through cave-ins, constructed barriers such as mortared stone walls, or magical barriers such as *walls of force*, are subject to all of the effects listed, at their normal rates of accumulation and effect. The air supply is finite, and once used up, cannot be replaced except through the introduction of fresh air.

Smoke that collects in such a room lingers for 1d6 hours after the fire that created it goes out. Poisonous or noxious gases remain in the area until vented out by the admission of fresh air. Again, the duration of all gas-based spells is normal.

Odor Detection

The sense of smell, while relatively insignificant when compared to those of sight and sound, occasionally provides a char-

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acter with advance warning of some nearby hazard or obstacle. This sense is only useful to a character when no other overpowering scent is in close proximity to him or permeating the area.

The basic procedure for a character to detect an odor is a Wisdom Check made when the scent is first encountered. Another check may be made if the scent grows very strong, or a change in the wind carries it to the character with increased force.

Of course, this Wisdom Check should be made by the DM so that the players are not alerted that they should be on the lookout for something. The reason that the check is not repeated more frequently is that if an odor is not noticed when it is first encountered, it will probably not be noticed thereafter unless something occurs to draw the characters' attention to it.

If the party has any dogs accompanying them, the DM may also check for the dogs if they would be alerted by the scent. The scent of a monster would almost certainly alert them, for example, while the odor of a campfire probably would not. Dogs are all assumed to have a Wisdom of 16, for purposes of this check only. If a dog smells something, the DM should describe the dog's reaction in appropriate terms: a growl of warning, perhaps, or a cringe of fear. If a dog has been trained to react in a certain way, then this reaction should be used. Sophisticated responses require considerable training, however, and should only be used if the dog has been trained.

The Wisdom Check is only made using the character's full Wisdom score if the odor is strong enough to be easily noticed. The strength of an odor is obviously going to require a DM judgment call, but general guidelines (for distance, type of odor, etc.) and Wisdom modifiers are given in Table 15: Odor Detection. If a dog is making the check, double the distance listed before implementing the negative modifiers.

Table 15: ODOR DETECTION

Source of Odor	Distance from Character			
	1-120 ft	121-360 ft	361-1000 ft	1000-5000 ft
Fires:				
small	0	-4	-8	—
large	+2	0	-4	-8
oil	+4	+2	0	-4
conflagration	+8	+4	+2	0
Odorous gas	+4	+2	0	-4
Creatures:				
strong-odor	0	-2	-6	-10
mild-odor	-2	-6	-10	—
no-odor	-6	-10	—	—
Cooking food	+2	0	-2	-6

The number found by cross-referencing the source of the odor with the character's distance from the source of the odor is a modifier to the Wisdom Check. A "—" indicates that the odor cannot be detected that far away.

Small fires are used for cooking or keeping a small group of individuals warm. They are generally one foot or less in diameter.

Large fires are bonfires, large campfires, funeral pyres, and other relatively sizeable but controlled blazes. A large fire can be 6-8 feet in diameter, with the flames rising even higher.

Oil fires are fires where oil, creosote, or coal is burning. Some pungent chemicals, when burned, create fires in this category.

Conflagrations are huge fires, often burning out of control. A large boat, a bridge, or a building creates a conflagration when it burns.

Odorous gases are those with distinctive smells, such as sulphur or methane (swamp gas).

Strong-odor creatures use an odor as a means of marking terrain (such as males among the great cats) or defending them-

selves (such as skunks). The area near the lair of such creatures always carries this distinctive scent, but it is only 50% likely to be encountered if the creature is prowling outside of its lair.

Mild-odor creatures are those whose living quarters or presence is generally accompanied by a distinctive odor. Pigs, while relatively clean animals, nonetheless tend to emit a fairly strong odor around their lairs. Most herd animals, especially those kept domestically by intelligent creatures, emit some sort of lair odor. Bands of orcs or other humanoid types with somewhat casual personal hygiene habits fall into this category as well.

No-odor creatures are those that take care to remove sources of odor from their lairs. Humans fall into this category, as do birds and reptiles.

Cooking food is just that.

If any currents of air are prevalent in the underground area, the wind direction can serve as an additional modifier. Table 16: Wind Effects on Odors lists the modifications to the distances at which odors are detectable. If a distance is listed as "1/2," for example, the distances for each of the categories listed on Table 15: Odor Detection should be reduced to 1/2 of the original.

Table 16: WIND EFFECTS ON ODORS

Wind Force	Direction of Source		
	Upwind	Crosswind	Downwind
Strong	Normal	1/2	No detection
Medium	Double	1/2	1/10
Light	Double	Normal	1/4

Upwind sources mean that the wind is blowing from the direction of the odor's source toward the character. Downwind means that the wind is blowing the odor away from the character, and crosswind means that the wind is blowing perpendicular to the direction between the character and the source of odor.

Strong winds are those capable of extinguishing torches and other small fires, and of raising clouds of dust. Medium winds cause torches to flicker, and extinguish small flames such as candles. Light winds are almost unnoticeable to characters.

CAVE-INS

Cave-ins are unique to the underground environment. Although not a common occurrence, the chance that the roof of an underground location may cave in is something that must be considered, especially if characters are excavating, using explosive magic, or otherwise placing stress on the overhanging rock.

Although the usual effect of a cave-in is to bring the roof of an area crashing down upon its inhabitants, cave-ins can also endanger characters in other ways. For example, a bridge that characters are crossing may collapse, or a floor may give way, dropping those who were standing on it amid tons of jagged, crushing rock. Characters may even try to trigger a cave-in as a means of attacking an enemy; such attempts must be made cautiously, however, since a cave-in may create a chain reaction that collapses a far larger area than intended.

Causes of Cave-ins

Most underground settings are solid enough not to collapse unless subject to a great deal of external pressure. In general, a strong cavern, dungeon, or realm is only susceptible to cave-ins as a result of natural disasters such as floods, earthquakes, or volcanic eruptions. Certain magical spells that duplicate these natural disasters can duplicate their destructive effects as well. A

raise water spell that creates a flood in a tunnel, for example, should be treated as a natural flood.

In the case of a major natural disaster, the DM's judgment must be used to determine the exact area of effect. Although the guidelines in this section serve to give an idea of what might occur during a cave-in in a specified area, the far-reaching effects of a major earthquake might actually annihilate an entire subterranean realm.

Occasionally underground areas are ripe for cave-ins. Perhaps aging has caused much of the supporting rock in an area to crack and crumble, leaving only a thin area of solid support—or maybe a recent earthquake or flood has left an area so weakened that only a slight additional bit of pressure is required for the entire area to fall inward. Such areas should be noted when the maps for an underground area are prepared.

Accidental Causes

Only the frailest of underground locations are susceptible to accidental cave-ins. These collapses are triggered by the weight of a creature walking across a weak spot, or even by the sounds created by characters or creatures.

Based on the weakness of the area under consideration, the DM should assign a percentage chance of a collapse occurring. A ledge, for example, might have eroded to the point where it has a 5% chance of collapsing per character crossing it. This chance should be modified if the characters are very heavily laden, or accompanied by mules or other creatures. The chance may be doubled if the characters run across the ledge, since the pounding is much harder than if the party walks slowly.

If the characters participate in melee combat on such a fragile surface, not only must the weight of all participating creatures be figured in (figuring carefully the weight of nonhuman creatures such as ogres), but the chance of a collapse should be doubled because of the additional pounding that the surface takes.

In cases where the weakened area is not directly beneath the characters, the chance of a cave-in is reduced. Unless the characters apply weight to the area, sound is the only other likely avenue for causing an accidental collapse. An area that could be triggered into a collapse by sound waves is very fragile indeed!

The intensity of the sound must be considered, with a percentage chance of collapse assigned according to the loudness and sharpness of the noise. For example, an area might stand no chance of collapsing under the sound pressure of normal conversation, but the clashing of swords in combat might give a 1% chance per round of a cave-in.

Cave-ins Caused by Excavation

Whenever characters or creatures are digging into the earth, they run the risk of excavating away a significant support for the ceiling, causing a cave-in. Mining is the most common cause of this type of cave-in, and precautions such as shoring up an excavated passage are usually taken by the miners. More details on these procedures are provided later in the rules for mining.

Characters trying to dig an escape tunnel or clear rubble from a previous cave-in are often unable to properly shore up their excavated passage. In this case, weakened surfaces stand a fair chance of collapsing. Generally, the possibility of a cave-in under such circumstances is about double that of an accidental cave-in. There is about a 10% chance per turn that a weakened ceiling or tunnel wall collapses during excavation.

Cave-ins Caused by Sabotage

It is not unusual for characters or underground denizens to intentionally weaken an area so that it caves in at an opportune time—at least, opportune in the minds of the saboteurs.

As with all types of cave-ins, the success of an attempt to purposely weaken a structure or surface depends on the inherent strength of the area. Many areas subject to such sabotage collapse on the heads of the saboteurs themselves.

Columns that support a ceiling, bridge supports, or narrow layers of rock over which characters or creatures walk are obvious targets for sabotage. To chip stone away to the point where a collapse is likely requires some skill at stonework and a little luck. A character must have miner proficiency to have a decent chance of successfully sabotaging an underground area.

A character without miner proficiency who makes a sabotage attempt should have a 1/3 chance of successfully completing his task, a 1/3 chance of leaving the structure too strong to collapse, and a 1/3 chance of bringing it down upon himself. A character with miner proficiency has a 2/3 chance of successfully sabotaging the area, and a 1/6 chance of not damaging it enough, and another 1/6 chance of damaging it so extensively that it collapses during the sabotage attempt.

Of course, an area—or at least the stone that supports an area—must be reached in order to sabotage it. The soaring ceiling of a vast underground chamber is very difficult for a character to damage. The columns that support that ceiling are much more accessible.

These attempts take considerable time and create quite a bit of noise. See the excavation rules (page 50) for an indication of how long it might take for a character to chisel his way through a column that is three feet in diameter. The DM must determine how much work must be done to sabotage a structure.

Random Occurrences of Cave-ins

If a campaign focuses on the underground for extended periods of time, the chance of a naturally occurring cave-in affecting the characters increases. Even though the chance is not very great at any given moment, if characters spend enough time underground they are certain to eventually encounter some sort of cave-in.

The base chance for a cave-in during the course of the characters' underground exploration is 1% per day. On long expeditions, the DM may wish to alter this roll to a 10% chance rolled every 10 days.

If the roll is successful, this means that a cave-in has occurred somewhere in the underground region near the PCs. This does not mean that the cave-in occurs on top of the characters, or even within their earshot. If a random cave-in is indicated, use Table 17: Cave-in Location to determine where, in relation to the characters, the cave-in has occurred.

Table 17: CAVE-IN LOCATION

D100 Roll	Location
01	On top of PCs
02-03	Immediately in front of PCs
04-05	Immediately behind PCs
06-10	In front of PCs, within hearing range
11-15	Behind PCs, within hearing range
16-55	Well behind PCs, out of hearing range
56-95	Well in front of PCs, out of hearing range
96-00	At entrance PCs used to get underground

All directions relate to the party's direction of movement at the time of the cave-in. In the categories indicating a cave-in some distance away, the higher the roll, the farther away the cave-in. It is quite possible for a group of characters to fail to discover a cave-in that occurs during their adventures.

In areas of exceptionally decayed stone, or of rotten supporting

CAVE-IN CHAIN REACTIONS

timbers, the DM may increase the chance of a randomly occurring cave-in. Such considerations could double, or perhaps triple, the chance of a cave-in.

Cave-in Chain Reactions

A significant menace is created when even a small section of an underground location caves in, even if the cave-in does no immediate harm. The force of gravity is constantly attempting to work its destruction on the ceilings of the underworld; even a small cave-in can so weaken supporting structures that a massive chain reaction of collapse begins immediately, or threatens an area in the near future.

When a cave-in occurs, the areas of nearby ceilings and walls must be checked to see if they weaken or collapse as a result of the original cave-in. The DM should roll d100 and compare the result to Table 18: Cave-in Chain Reaction. By comparing the resulting number for each section of adjacent material, the extent of the cave-in can be determined.

Table 18: CAVE-IN CHAIN REACTION

Original Location of Cave-In	Area Above Cave-in	Area Next to Cave-In
Ceiling	48%	32%
Wall	32%	12%
Ledge/bridge	5%	12%
Support Column	80%	4%

A d100 result that is equal to or less than the number listed indicates that the adjacent area has also collapsed. The area of the chain reaction collapse is about the same as that of the original cave-in (see the following Effects of Cave-ins section). If the die roll does not indicate a collapse, but is within 10% of the chance listed, the area is significantly weakened, and might collapse at any moment.

Areas that collapse as a result of a chain reaction force checks for chain reaction collapses in all adjacent areas. The percentage chance for such a tertiary collapse is half (rounded up) the chance for the original chain reaction cave-in. If the chain reaction continues, each subsequent roll is made with 1/2 the chance of the chain reaction roll that forced it.

If an area is exceptionally weak and decayed, however, the DM may ignore the declining chance of a chain reaction cave-in and use the original cave-in chance for all subsequent rolls. This is common in areas that have been heavily eroded by water or other natural forces, or in areas that were constructed long ago and left to fall into a state of ruin.

Example of Chain Reaction Cave-ins

A 9th-level druid casts a *transmute rock to mud* spell upon the stone ceiling of a vast underground cavern. The spell affects an area of rock 100 feet long, 80 feet wide, and 10 feet thick, immediately converting all of the stone in that area to mud, which then falls to the ground. The DM then rolls d100 for the area immediately above the mud ceiling and each of the four areas to the sides of the spell's effect. The roll for the area above the cave-in is a 31, indicating that another layer of rock falls on top of the mud. This triggers yet another roll for the rock on top of the stone that just fell, at 1/2 the original probability. This next roll is a 42, which is greater than the 24 needed to continue the chain reaction upward, so the second layer above does not collapse.

The d100 rolls to check the sides of the cave-in for a chain reaction are 12, 65, 97, and 33. Consequently, only one of the four sides of the spell's area continues to collapse. As it does so, how-

ever, additional checks are required for the area immediately above this secondary collapse, and for the areas to the three sides that have not already collapsed. All of these rolls have only 1/2 the chance of collapsing listed on the cave-in Chain Reaction table, since the cave-in triggering the checks was itself a chain reaction.

If a collapse should be triggered by a secondary check, it causes additional checks to be made as well. These tertiary checks, however, have only 1/4 the chance listed.

Effects of Cave-ins

The effect of a cave-in upon characters and creatures that are in the area depends on where they are and the amount of rock that is falling.

If characters are on top of something that collapses, consider the distance fallen. Also, treat the character's landing surface as rough, as explained under the expanded falling rules (page 19).

The base area of a cave-in can often be determined by the structure or surface that is collapsing. A bridge that collapses will collapse along its entire unsupported length. A tunnel ceiling collapse can never be wider than the tunnel itself.

In areas where the size of the cave-in must be determined randomly, such as the ceiling of a vast chamber, assume that the base cave-in occurs only in an area of 20 feet by 20 feet, roughly in a square shape. Chain reactions must be checked for each adjacent square area, as well as in the ceiling directly above the rock that has caved in. Such chain reactions radically increase the total size of a cave-in.

If a layer of rock falls from a ceiling or wall, assume that the layer is three feet thick unless other considerations apply. A two-foot-thick layer of stone that serves as a ceiling in one chamber and a floor in the one above it, for example, is never more than two feet thick when it collapses. If a three-foot-thick section of collapsing rock leaves additional stone above it, then that stone should be checked for a chain reaction cave-in.

If characters are beneath an area of rock that collapses, the average base damage per character is 4d8 per 10 feet (or less) thickness of rock that falls. The characters should be allowed to make a saving throw vs. petrification for half damage. Thus, if a 30-foot-thickness of rock came crashing down upon the characters in a cavern, each character would sustain 12d8 points of damage unless the saving throw reduces the damage to 6d8.

If the falling material is mud, silt, or any other sludgy substance, the damage inflicted on characters below it is only half that caused by falling rock. Characters are also entitled to a saving throw vs. petrification, which—if successful—will halve this damage again. Falling water also inflicts 1/2 of the normal damage, with a save allowed for 1/4 damage. In the case of water, however, the damage is inflicted for the first 10-foot-thickness of falling material only. Even if the character remains under a column of pouring water, he does not sustain additional damage from the weight of the water. It is quite possible, however, that the character is unable to breathe and needs to escape the water or drown.

Defensive Point Values of Underground Formations

Just as constructed fortifications have Defensive Point Values, as explained in the *DMG* (page 110), many types of natural and constructed formations are assigned Defensive Point Values. Use these values to determine if an area is destroyed by the effects of an attack or spell.

When a Defensive Point Value is provided for a cubic open space, the value equals the amount of damage needed to cause



the area's ceiling to collapse. Check for additional ceiling or wall collapses with the normal chain reaction procedure.

Table 19: UNDERGROUND STRUCTURE DEFENSIVE POINT VALUE

Formation or Structure	Defensive Point Value
Room, 10-ft tube	50
Room, 20-ft cube	90
Column, 3-ft diameter	10
Column, 10-ft diameter	100
Wall, 10-ft square	20
Bridge, small wooden	12
Bridge, small stone	40
Bridge, large stone	80
Rock ledge, per 1-ft wide	10
Ceiling, small cavern	100
Ceiling, large cavern	250
Stalactite, small	8
Stalactite, large	20

HYPOTHERMIA (Optional Rule)

Although it might seem contrary to usual heroic fantasy, most DMs maintain realistic limitations on the physical prowess of their players' characters. A logical appraisal of normal human (and demi-human) capacities acknowledges that the effects of extreme cold can be harmful to characters, even when not delivered in the form of magical damage. Thus, the restrictions on a character's ability to resist cold are as follows:

Although the underworld is not a common setting for glacial and arctic adventuring, the damp chill of the air is decidedly unhealthy for most creatures. The streams, rivers, and lakes of the Underdark have the capacity to numb a character who suffers prolonged exposure to their bone-chilling cold waters.

A character becomes subject to hypothermia (a disastrous lowering of body temperature) after one turn of swimming in a typical underground body of water. This assumes that no subterranean heat source is warming the water. The risks of hypothermia are reduced in shallow water. If a character is moving through water between knee and waist deep, hypothermia effects do not begin for one hour; if the water is shallower than knee deep, hypothermia is not a threat. After hypothermia sets in, the player must make a Constitution Check. If the check fails, the character loses 1d6 hit points. The check must be repeated every turn, with all hit point losses accumulating until the character reaches some external heat source that can warm his chilled body. Hit point loss continues even after the character has gotten out of the water, if no heat source is found.

If a means of warming up, such as a fire or the close presence of other warm-blooded creatures, is located, the character regains 1d6 hit points per turn until the losses have been fully recovered.

Creatures that are especially adapted for cold environments or who carry magical protections such as a *ring of warmth* are not susceptible to the effects of this rule.

A character who takes care to thoroughly coat himself with a layer of grease or oil before entering the water can double the amount of time before making a Constitution Check, and can double the interval between checks as well.

MAGNETIC EFFECTS OF LODESTONE

An occasional feature of the underground environment that can cause consternation and serious problems for a player char-

acter is the magnetic field created by a band of lodestone.

Magnetism affects characters cloaked in iron armor, and can impede combat when iron weapons are used.

Lodestone in its more innocuous form is encountered frequently in areas containing iron ore. In this common form, the magnetic pull is barely strong enough to be noticed, and certainly cannot impede a character's movement or combat.

Deep beneath the earth, however, concentrated ores of iron and other minerals have formed regions of massively powerful magnetic rock. The magnetic attraction of such rock can be detected by a character who passes a Wisdom Check when still 120 feet distant from the lodestone. This initial detection is manifested by nothing more than a slight tug on all iron possessions.

The lodestone's effects become obvious to any characters moving within 90 feet. The force upon metal objects, while definitely noticeable, is still not capable of pulling a character against his will.

A character who comes within 30 feet of such a powerful lodestone becomes threatened. Iron objects hanging on the character are pulled toward the lodestone with a force that can snap a thin leather strap. The character must make a Strength Check for all hand-held objects containing iron. If the character is wearing iron armor, he must make an additional Strength Check or be pulled 10 feet closer to the lodestone.

If the Strength Check is successful, the character retains hold of the item, or holds his ground and does not get pulled toward the stone. No further checks are required as long as the character does not move closer to the stone.

When the stone is approached, whether voluntarily or not, the Strength Checks must be repeated each 10 feet. A character suffers a -2 penalty to his Strength when 20 feet away, and a -4 penalty if only 10 feet away.

Removing any iron object stuck to the lodestone requires a Strength Check with a -6 modifier. If the check fails, the character is forever unable to remove the object. These lodestones lose all their powers if removed from their natural settings.

NPC REACTIONS TO LONG UNDERGROUND ADVENTURES

Players make the decisions about their characters' likes and dislikes. Henchmen and hirelings, however, do not have the motivation that inspires player characters to embark upon a prolonged underground expedition.

If NPC companions of the player characters are expected to accompany a long underground expedition, special incentives may be necessary to persuade the NPCs to remain underground. Henchmen and hireling loyalty should be checked as soon as they are informed of the nature of the expedition, with a normal *Loyalty Check* as explained on *DMG* pages 36 and 37. The check is required whenever a party plans to spend a week or more underground. It is not necessary for dwarf, gnome, or drow NPCs.

There are two additional modifiers that may apply to Loyalty Checks underground. A -5% applies to the d100 roll for every week that the party plans to spend underground. Also, if the NPCs learn that they have been deceived about the duration or destination of the expedition, or are told when it is too late for them to avoid it, an additional -10% modifier applies.

For example, if the PCs lead a group of henchmen and hirelings across a blazing desert, then announce that they will explore a dungeon and plan to be underground for a month, the NPC Loyalty Check is made with a -20% modifier for the month underground and an additional -10% modifier for deceiving the NPCs.

Each NPC, whether henchman or hireling, must be checked with a separate roll. The DM should note all of the NPCs who fail the check.

A failure on this Loyalty Check means that the NPC does everything possible, short of risking his life, to avoid going on the mission. If he is compelled to accompany the party by circumstances or the PCs, he is considered to be *unsteady*.

An unsteady character becomes unsettled by long periods underground, away from sunlight and fresh air. His mind begins to slip, slowly at first, and finally in a fashion that can prove disastrous for himself and his companions.

The unsteady character begins to suffer ill effects following the first week underground. His morale is lowered by 10% for all Morale and Loyalty Checks. He acts nervous and jumpy. Following each additional week of underground exposure, another Loyalty Check is rolled for the character. As soon as one of these fails, he becomes completely irrational. Roll 1d100 and check the NPC's reaction on Table 20: Unsteady NPC Reactions.

Table 20: UNSTEADY NPC REACTIONS

D100 Roll	Reaction
01-20	Character runs screaming toward the surface to the limits of his Endurance
21-55	Character attacks nearby PC
56-85	Character attempts to sneak away quietly, as soon as possible
86-00	Character freezes in place, not reacting or moving

Effects determined on this table last until the character is slain, or returned to the surface. In the latter case, the character must spend 1d6 weeks above ground before a Wisdom Check is rolled for him. If this check succeeds, the character has recovered. If it fails, the character is permanently afflicted with the appropriate irrational behavior.

STRUCTURAL DECAY

The underground environment inflicts relatively swift decay upon wooden structures. The following effects occur in the typical underground location, and assume the presence of very humid air. In subterranean areas that are almost completely dry, the decay of wooden objects is a mere 2 or 3% of the rate given.

Anything made out of wood and kept underground begins to show signs of rot after 1d6 years. If the wood is soaked in creosote or some other sealing substance, this period is doubled.

The rot creates a 5% chance of collapse for each multiple of the 1d6 roll that passes. Thus, if the first roll was a 1, there is a 5% chance of collapse every year, and the structure would last a maximum of 20 years (at which time the chance of collapse is 100%). If the original roll was a 6, however, the structure might last as much as 120 years.

The wooden structure should be checked whenever any activity puts unusual stress upon it. The check is made with a d100 roll against the percentage chance of collapse for the structure.

UNDERGROUND WATERWAYS

The rivers, lakes, and streams of the underearth provide a rare opportunity for unimpeded transportation through the Underdark. These waterways are not uncommon, but only a small proportion of them are truly navigable. Many of the rivers and streams run swiftly, and often plunge and roar through caverns that are completely filled with water. This makes methods of river transportation used on the surface virtually impossible.

Denizens of the Underdark, and adventurers who visit there regularly, have worked out a number of ways to deal with treacherous underground waterways. Some of the techniques closely resemble those used for surface water transportation, while others are unique to the sunless environment.

Water underground is found as flowing water (brooks, streams, and rivers) and standing water (pools, reservoirs, lakes, and seas).

Water temperature is often a valuable clue as to the origin of an underground waterway's flow.

Standing Water

Standing water gathers wherever the flow of water into an area becomes so dispersed that a current is no longer readily detectable. Although water may still flow through an underground lake, the current travels so deeply or slowly that it cannot be observed.

The characteristics of underground lakes and seas are very different from their counterparts on the surface. The absence of wind is a significant difference, but the overhanging ceilings make an even more pronounced impression. If the ceiling over an underground lake, pool, or sea is so low that it touches the surface of the water or leaves only a few inches of clearance, normal boat travel is impossible.

The absence of wind means that sailing is virtually unheard-of underground, except in those rare instances where the ventilation is ample enough to create a wind capable of moving a boat. Waves are practically nonexistent. Thus, underground lake and sea shores are not eroded by wave action, although magical forces or falling objects can cause occasional waves. A cave-in somewhere above or next to a lake often forces a powerful wave outward, much like a *tsunami* on the surface. In fact, the earthquakes that cause tsunamis in the outside world often produce similarly destructive waves in the Underdark.

The action of such waves is often amplified and confused by the confining walls that enclose most underground bodies of water. If a large wave starts in a small underground body of water, a deadly and chaotic surface of choppy waves can last for many turns. The exact duration of such disturbances is left to the DM's discretion, since it depends on the force that created the original wave and the size of the area enclosing it.

Other causes of waves include animal, monster, and humanoid activity, and streams flowing into a standing body of water. Characters confronted with waves on an otherwise still body of subterranean water are wise to determine the source of the disturbance.

Lakes and pools make up the majority of underground bodies of water. They differ in size (lakes are larger), but both contain fresh water.

Large pools and lakes often support a wide variety of living creatures. Even small pools may hold such creatures, as long as a sufficient food supply is available in the water, or (in the case of amphibians) in the surrounding area.

Lakes and pools can be found at nearly all depths of the Underdark, from a few hundred feet below the surface to the farthest depths of the world. If a lake or pool has a stream or spring flowing into it, the water is almost always safe to drink.

Reservoirs are commonly created by the intelligent denizens of the Underdark. As might be expected, each reservoir is contained by a dam of some kind—but this dam is not always built along the side of the reservoir. It may, in fact, be located at the reservoir's bottom, and serve much the same function as a cork in the bottom of a leaky bucket.

Occasionally a reservoir is formed as a secondary result of some race's attempt to regulate the flow of water for irrigation, transportation, or defense. In any event, reservoirs have most of the same characteristics as underground lakes and pools.

FLOWING WATER

Seas lie in the deepest depths of the Underdark. As on the surface, seas contain salty water heavy with minerals that have been dissolved from the surrounding rock. Because of their age, seas are almost always huge in comparison to other underground bodies of water.

Whole races of intelligent and unintelligent creatures inhabit the seas of the Underdark. Some of these seas are cold, vast, and deep. Others lie so close to geothermal heat sources that their waters are warm and the air surrounding them is heavy with steam.

These seas are so far away from the surface of the world that they are rarely seen by outsiders. Even if a navigable path is somehow found through a long network of underground streams and rivers, a return trip of such a distance without the benefit of a current is almost unthinkable.

Flowing Water

Flowing water is more commonly encountered underground than standing water. Indeed, it is flowing water that has shaped much of the underground environment.

The characteristics of a flowing body of water are determined by three significant measurements: the diameter of the waterway, the percentage of the passage that is filled with water, and the rate of flow.

Passage Diameter

The following four categories describe the various types of passages through which underground waterways flow.

Impassable waterways are too narrow for a fully equipped party of PCs to move through. These passages may be as narrow as a few inches—small cracks that spew forth considerable volumes of water—or they may be wide enough for characters to wriggle through. At least part of an impassable waterway must be less than three feet in diameter.

Narrow waterways include streams and rivulets. A narrow waterway follows a path less than 20 feet wide, and is generally less than three feet deep.

Average waterways include streams and small rivers from 20 to 60 feet wide. Although occasionally shallow enough to wade in, average waterways are usually four to eight feet deep.

Wide waterways include all areas of flowing water more than 60 feet wide. The depth of such a waterway is generally greater than eight feet, at least in the center. The water near each bank is often considerably shallower.

Occasionally an artificially constructed underground waterway may be encountered. These include canals, which allow water transportation between areas, and aqueducts, which move water from one location to another. The underground races also use flowing water to turn water wheels, creating a power source for fans, pumps, and other machinery. In some locations, water-powered pumps are even used to operate locks on underground canals.

Percentage of Flow

This characteristic is reflected by a percentage number. If the tunnel or passage containing an underground waterway is examined in cross-section, the percentage of flow number equals the amount of the passage that is filled with water.

A river passage with a 50% flow is half-full of water and half-full of air. Depending on the overall size of the passage, it might be possible for characters to swim or boat through the waterway. A passage with 100% flow is completely filled with water and impossible to boat through.

Rate of Flow

The rate at which water flows through an underground stream determines a number of other characteristics of the waterway: how quickly the riverbed erodes; how quickly the river loses altitude in its travels (remember, all rivers flow downhill to some extent); how much noise the river makes; and how dangerous the river is to travel upon.

The maxim "still waters run deep" is more than an idle phrase. The deeper a given body of water, the more slowly it runs. Thus, areas of savage and churning rapids tend to be rather shallow; the same amount of water moves much more gently along a deep riverbed.

In game terms, rate of flow is quantified as a number ranging from 1-40. Waterways with a current of 1 are barely moving, while those rated 40 tumble down as waterfalls. A completely stagnant body of water receives a 0 rating. The actual movement rate of the current can be calculated by multiplying the flow rate by 20 feet per round.

Stagnant water seems to have no flow whatsoever (flow rate = 0). Stagnant water is encountered in a stream or riverbed when there is no downhill flow. Instead, the water collects in pools and low spots in the riverbed. While travel along a stagnant body of water is not threatened by flow, it may be difficult if the water is too shallow to support a boat.

Placid water usually has a noticeable flow (flow rate = 1-2). It is sometimes necessary to drop bits of wood, dust, or other floating objects into the water to determine the direction of its flow. Placid water is often encountered near the mouths of streams or rivers or in lakes.

A placid waterway has a barely perceptible drop in altitude as it flows along, often no more than 10 or 15 feet per mile. Any rocks or other obstacles in the water can be easily avoided. The rate of flow of such a stream is 40 feet or less per round.

Medium flowing water is the most pleasant for traveling downstream (flow rate = 2-6). The water flows along at between 40 and 120 feet per round, descending only slightly on its course. A river with a medium flow may drop as much as 30 feet over the course of a mile.

Travel along this type of waterway is relatively safe, but characters must keep a lookout for potential obstacles such as rocks protruding from the water. With care, obstacles are easily avoided, but characters not paying attention may be drawn into an unfortunate collision by the force of a medium flow of water.

A river with medium flow has few if any sudden drop-offs. When PCs travel along such a river, the DM should roll 1d6 for each mile traveled. On a 5 or 6, a drop-off of 1d3 feet is encountered somewhere in that mile.

Rapid flowing water is more commonly called rapids (flow rate = 6-12). The water spills and rolls along with a muted roar, crashing into and around any obstacles in its path. Water flowing through rapids travels more than 120 feet per round—sometimes as much as 240 feet per round. The descent of the stream bed ranges from 30 feet to as much as 200 feet over the course of a mile.

The sound of rapids can be heard by characters and creatures within 1,000 feet.

Traveling upstream along rapids is impossible unless powerful magic is employed. Traveling downstream along rapids is dangerous, but possible. Certain kinds of boats, such as kayaks, are more suited to rapids than most standard boats. Characters who try to boat down a rapid stream without possessing boating proficiency will find themselves in great danger.

Rapids generally have many sudden drop-offs during the course of their flow. For each mile that the PCs travel along a rapid stream, the DM should roll 1d6. A result of 6 means that no significant drop-offs occur during the mile. A result of 1-5 is the number of drop-offs encountered. Each drop-off falls 1d4 feet.

Cascades are steeply dropping portions of a river where the water tumbles from one level to the next in a foaming series of short drops (flow rate = 12-30). A cascade is much like a stairway with water running down it. The thundering roar of a cascade is usually audible at least a mile away from the river.

Water spilling down a cascade travels at anywhere from 240 to 600 feet per round. The waterway descends at a slope of at least 200 feet, and perhaps as much as 1,000 feet, in a mile. Traveling upstream against the force of a cascade is impossible; traveling downstream might be possible for a lucky character with boating proficiency who is in a kayak.

A cascade, by its very nature, includes many drop-offs. If PCs chance to travel down a cascade, the DM should roll 3d6 for each mile traveled. The result is the number of drop-offs encountered during the course of that mile. Each drop-off is 1d8 feet high.

Waterfalls represent flowing water at its fastest and most powerful (flow rate = 30-40). A waterfall is created wherever flowing water falls freely to a lower level instead of flowing along a bed. A long stretch of waterfalls, with rapids or cascades between them, is still considered a waterfall.

The speed of water plummeting over a fall is at least 600 feet per round. The exact speed depends on the number of steps in the fall. While it is theoretically possible for a waterfall to plunge thousands of feet straight down, most waterfalls include areas where water flows forward along a bed. For purposes of this rule, anywhere the water plunges at a slope of more than 1,000 feet per mile is considered a waterfall.

The nature of a waterfall makes it impossible to control a boat traveling over the fall. Although characters in boats might survive a plunge over a waterfall, such survival is more a matter of luck than skill.

Damming the Flow

Underground waterways are as susceptible to damming as their surface counterparts. Because of their confining environment, damming underground rivers or streams often produces dramatic results.

The success of a damming attempt by PCs must be adjudicated by the DM. Is sufficient material available to fill the passage to a suitable height? Is the water flowing so fast that any damming material will be swept away?

If an underground waterway is dammed, it immediately begins to back up and flood behind the dam. A DM confronted with this situation must rely on accurate three-dimensional maps (see page 114). The water may well be diverted into other parts of an underground setting, filling rooms and making its way through corridors and down stairways.

In an average waterway, water held back by a dam fills a 10-foot cubic area (10 ft x 10 ft x 10 ft = 1,000 cubic feet) times the waterway's flow rate per turn. Thus, if an average-width waterway with a current of five is dammed, the water backs up at a rate of five 10-foot cubic areas (5,000 cubic feet) per turn. This figure should be doubled for a wide waterway and quartered for a narrow one. As soon as the water level reaches a height that allows it to flow through another channel, it changes course to follow the path of least resistance.

The strength of a dam is measured in Construction Point Values, as shown on *DMG* pages 109-110. A single worker can construct 1d6 points of dam per turn. The current destroys a number of points equal to the water's rate of flow each turn, however, so several characters must work together to dam rapid streams.

The Construction Point Values of completed dams equal 50 points on a narrow waterway, 150 points on an average waterway, and 250 points on a wide waterway. Once a dam is completed, water will not destroy it unless something specifically weakens the dam or increases the water pressure. Once a dam begins to

leak, however, water destroys a number of points equal to half the rate of flow per turn until the dam is washed away or repaired.

Water Temperature

Unless some external source of heat is contributing to the water temperature, underground water is almost universally cold. Although water rarely freezes underground, its temperature is numbing to any characters who get soaked in it.

Some underground water flows directly from above-ground sources such as shallow seas, lakes, and meandering rivers. If the water is relatively warm when it leaves its source, it retains this warmth for 1d4 miles.

Underground water can also occasionally be warmed by geothermal heat sources—the same sort of heat energy that gives rise to geysers and volcanoes. Depending on its proximity to the heat source, such water might be only slightly warmer than the usual underground waterway, or it might be so hot that a character falling into it is scalded to death very quickly.

Characters immersed in water that is at or near boiling temperature suffer 6d6 of burn damage per round spent in the water. No saving throw is allowed, although characters with any kind of magical protection against heat or fire gain a -2 per die of damage (minimum of 1 point per die).

Characters only partially immersed in such water only suffer partial damage. The DM must establish a proportional number of d6 of damage based on what proportion of the characters' bodies is exposed to the water.

Water that is very hot, but not near boiling temperature, inflicts 1d6 points of damage to characters immersed in it. Characters who are only partially exposed, or who have any kind of magical protection against fire and heat attacks, are not affected. If the water is no warmer than very hot bath water, characters suffer no ill effects from the heat.

Access to Underground Waterways

The streams and lakes of the Underdark can occasionally be embarked upon directly from the surface. A meandering stream may flow into a cave and disappear, or the far side of a mountain lake may include a cave both high enough and deep enough for a boat to enter.

More often, however, water flowing underground drops from the surface in a series of cascades and waterfalls, or trickles through a tunnel too narrow for characters to follow. In these cases, characters must enter the underground through a dungeon or cavern and then find a suitable place to join the river below.

In rare cases, an underground river might actually return to the surface. If a cavern or cave has been created in a mountain or highland area, for example, the water might work its way downward within the earth, but as it reaches the end of the higher elevations it flows out of a cavern or tunnel to run again as a surface stream. If the water is suitably placid, such locations can provide opportunities for characters to gain access to an underground waterway. Entering at a water outlet necessarily entails the problems of traveling upstream along the water.

Once a waterway is located, an accessible shore must be discovered. Underground lakes and seas are generally not surrounded by the sandy beaches so common on the surface, since without waves there is no force to grind the stone into sand. Such bodies of water are more likely to be surrounded by sheer cliffs or jagged boulders. Of course, in the inhabited portions of the Underdark, it is likely that some intelligent creatures might have built docks or wharves for their own use. It is even possible that these creatures may have left a few boats lying around!

Streams and rivers are much more likely to be bordered by smooth sand beaches that allow easy access to the water.

UNDERGROUND WATER TRAVEL

Because the torrents of rushing water serve as constant gouging forces in their channels, riverbeds are gradually growing deeper and enlarging their sandy beaches. This gradual deepening means that it is not unusual for an access tunnel, which once fed into a river below its surface, to now end with its mouth a dozen or more feet above the river's surface.

An additional problem associated with underground waterways is ceiling height. The water might be deep enough to support the heaviest of boats, but if the ceiling drops to within a few feet of the water, travel by boat is quite impossible.

Underground Water Travel

Travel by boat along the waterways of the Underdark involves a different set of risks and obstacles than boating in the lakes and streams of the surface world. Of course, some of the challenges are similar, such as negotiating a rapid stream in a small boat, but the inky darkness of the underworld changes the experience significantly.

Of course, the dangers presented by weather are generally absent from the underground. On the other hand, low ceilings and tortuously winding passages create problems not encountered on the waterways of the surface world.

The problems involved in getting watercraft into the dungeon must be handled in the specific campaign setting. Such enchanted vessels as the *folding boat* are ideal for dungeon adventuring, since they can easily be carried through narrow passages, down stairways, etc.

Collapsible boats, while expensive and weaker than normal boats, provide another means of traversing underground waters. In inhabited or heavily traveled regions, characters might be lucky enough to find boats used by creatures dwelling underground. Such boats could possibly be borrowed, bought, or otherwise acquired by the PCs.

If the party attempts to carry a boat with them into a dungeon, the DM must make careful note of the dimensions of the boat, as well as the size of the passages of the dungeon. In a tight series of turns or bends in the passageways, it might be helpful to draw a detailed map of the corridors and cut out a scale model of the boat. It is then easy to see if the boat can fit through a given area.

Movement Rates

This section expands on the boat movement rates given in the *DMG*, on page 54. Movement rates are given here in terms of feet per round. In addition, rates for canoes and kayaks are added.

Table 21: BOAT MOVEMENT RATES *

Type of Boat	Normal Oar/Paddle	Maximum ** Oar/Paddle
Small rowboat	90 ft/r	120 ft/r
Coracle	30 ft/r	45 ft/r
Large rowboat	45 ft/r	60 ft/r
Small barge/raft	30 ft/r	45 ft/r
Large barge	20 ft/r	30 ft/r
Small canoe	120 ft/r	180 ft/r
Large canoe	90 ft/r	120 ft/r
Kayak	120 ft/r	180 ft/r

* Subject to the speed and direction of water flow.

** A character propelling a boat at maximum speed is considered to be working hard for purposes of the fatigue and exhaustion rules.

Moving a boat from a stationary position to normal speed can be done fairly quickly with most types of boats. The following table expands on the *DMG* information on this subject:

Table 22: MOVEMENT FROM A STANDSTILL POSITION

Type of Boat	To Normal Speed	To Maximum Speed
Small rowboat	1 round	3 rounds
Coracle	1 round	3 rounds
Large rowboat	2 rounds	5 rounds
Small barge/raft	2 rounds	6 rounds
Large barge	5 rounds	10 rounds
Small canoe	1 round	2 rounds
Large canoe	1 round	3 rounds
Kayak	1 round	2 rounds

Whenever boat movement is calculated, it is important to remember that this movement is relative to the water only. The boat's movement rate must be combined with (either added to or subtracted from) the water movement to determine the boat's movement relative to land.

For example, in a stream flowing 60 feet per round, a canoe traveling upstream at 90 feet per round is actually only moving 30 feet per round past the bank of the stream. The same canoe traveling downstream streaks along at 150 feet per round, relative to the stream's bank.

The same procedure for calculating the boat's acceleration is applied in reverse to determine how long a boat will continue coasting forward if its crew attempts to stop it.

Ceiling and Depth Requirements

All boats require a certain amount of room above and below the water's surface. Table 23: Boat Draught and Ceilings lists the requisite distances for various types of craft.

Table 23: BOAT DRAUGHT AND CEILINGS

Type of Boat	Depth Required	Ceiling Required
Small rowboat	1/2 ft	2 ft
Coracle	1/2 ft	3 ft
Large rowboat	3/4 ft	3 ft
Small barge/raft	3/4 ft	3 ft
Large barge	1 ft	4 ft
Small canoe	1/4 ft	1 1/2 ft
Large canoe	1/3 ft	2 ft
Kayak	1/4 ft	1 1/2 ft

The ceilings listed are the minimums needed for that type of craft to pass unimpeded, assuming that cargo is kept below the level of the gunwales and all passengers lie flat.

Proficiency Effects on Boat Movement

The movement rates listed for boats assume that at least one character who is helping to propel the boat has boating proficiency. The following penalties are incurred if no characters possess boating proficiency:

Table 24: NONPROFICIENCY PENALTIES FOR BOAT USE

Type of Boat	Movement Modifier	Capsize Chance
Small Rowboat	-30 ft/r	5%
Coracle	-15 ft/r	10%
Large Rowboat	-15 ft/r	0
Small barge/raft	-10 ft/r	0
Large Barge	-5 ft/r	0
Small canoe	-60 ft/r	20%
Large canoe	-30 ft/r	10%
Kayak	-60 ft/r	25%

The movement modifier is applied to each round of operation at normal or maximum speed. The capsize chance is rolled for each time a character enters or leaves the boat, and on any other occasions the DM feels are risky. For example, if a canoe operated by characters without boating proficiency should attempt to turn around in a stream with a mild current, the DM might declare a capsize check. If the characters attempt to retrieve something from the water, stand up in the boat, or do anything equally risky, the DM may also require a check.

If at least one person with boating proficiency is present in the boat, the capsize chance does not apply. If at least half of the characters paddling or rowing the craft have boating proficiency, the movement penalties do not apply.

All of these nonproficiency penalties assume that the boat is moving through water of medium flow or slower. Riding rapids or cascades is much more challenging, as mentioned on this page and on page 48.

Collisions

A boat that smashes into a large boulder or rocky promontory may suffer damage. Collisions are especially hazardous in the underground environment because of the constricted nature of the waterways. In addition, the lack of light makes travel even more dangerous than on the surface.

A boat that carries a lantern or beacon aboard can light the water before it sufficiently to avoid collisions due to darkness. If the light is snuffed, however, or the boat's progress is especially fast, the danger of smashing into a rock becomes very real.

In general, obstacles can be avoided if the range of vision of the characters on board is greater than the distance the boat travels in one round. (Infravision is sufficiently sensitive to the differences between the water and its bed to navigate a boat.)

If the boaters' vision does not extend far enough to avoid collisions, the craft must check each round to determine if it collides with anything, such as the bank of the waterway or a barely submerged rock. Table 25: Collision Probability displays the chance of a collision occurring.



MINING

Table 25: COLLISION PROBABILITY

Width of Waterway	Placid*	Medium*	Rapid*
Narrow	1%/10%	5%/20%	20%/40%
Average	0%/5%	2%/10%	10%/20%
Wide	0%/1%	0%/4%	4%/8%

* Number before slash is for a character with boating proficiency; number after slash is for a character without boating proficiency.

A d100 roll against this table must be made each round that the boat travels blind. A result equal to or lower than the percentage listed means that the boat collides with an unyielding surface.

A collision does not necessarily inflict damage upon a boat, but the faster the boat is moving, the greater the chance that damage results from a collision. The base chance of suffering damage is equal to 5% for each 30 feet per round of the boat's speed. For example, a boat traveling 90 feet per round has a *damage probability* of 15%. When a collision is indicated, roll d100 again and compare the result to the damage probability.

If the d100 roll is equal to or less than the damage probability, the boat sustains some damage from the collision. The exact extent of the damage is determined by the difference between the die roll and the damage probability, and is expressed as a percent of the boat's hull strength.

For example, if the roll for the above-mentioned situation was 05, this is 10% less than the 15% damage probability for the boat. Thus, the boat's hull has suffered 10% damage.

The actual effects of this damage are detailed on Table 26: Boat Damage.

Table 26: BOAT DAMAGE

Percent Damage	Effects
01-05	Boat leaks slightly; will founder after 1d6 hours
06-10	Water pours in from a small hole; boat founders in 2d4 + 2 turns
11-20	Water pours in from 2d4 small holes; boat founders in 2d4 turns
21-45	Large holes in hull, boat founders in 1d6 rounds
46-60	Hull splits open and boat founders immediately
61-80	Boat breaks into 1d6 pieces
81-98	Boat splinters into many small pieces
99-00	No damage!

Drop-offs

Streams of rapid or cascading water often tumble over rocky drop-offs during their course of flow, and this occasionally occurs in streams of medium flow as well. These drop-offs present special hazards to boaters, since they can cause a boat to capsize, or can inflict collision-like damage upon it.

Every time a boat plunges over a drop-off, check for damage just as if the boat was in a collision. The chance of damage is 5% per one foot of the drop-off, however, and is not based upon the boat's speed. As with a collision check, the degree of failure determines the extent to which the boat is damaged, with the actual result determined on Table 26: Boat Damage.

Any time this roll is made and the result is 99 or 00, the boat miraculously survives the fall undamaged.

The chance of capsizing is also 5% per one foot of drop-off. If a capsizing is indicated, however, and a character with boating proficiency is aboard, any one character with boating proficiency can

attempt to make a Proficiency Check. Success means that the character prevented the boat from capsizing.

Bailing

Characters who are not rowing or steering a boat can attempt to bail out water that flows in from a ruptured hull. Bailing is considered strenuous exercise for purposes of fatigue and exhaustion rules, unless the boat is only leaking slightly.

A single character can bail enough water to cancel the effects of one small hole in the hull. The character must have a suitable container to scoop the water with, and must devote all of his time to bailing.

Capsizing

A boat that capsizes tips over and fills with water. All loose objects in the boat fall free, and must be recovered individually. In rapidly moving water, recovery of scattered items is usually impossible. The boat must be refloated before it can carry passengers and gear again. It takes 1d4 rounds to refloat a capsized boat.

Capsized boats do not sink, so characters who cannot get their footing in the water are often able to hang onto the boat and float downstream until they can refloat it.

Of course, if the boat was damaged at the time it capsized, the holes must be repaired before refloating (see boatwright proficiency on page 25).

MINING

Perhaps the most valuable of all natural underground resources are the stones and metals found by miners. Mined resources of the underworld contribute greatly to life on the surface. Strong metals like copper and iron are necessary elements of blacksmithing, while valuable stones and metals like emeralds, rubies, and gold are all highly prized.

With the introduction of the miner proficiency (see the Proficiency section), it is quite likely that some player characters will take an interest in mining. As always, this is subject to the DM's wishes. Should a Dungeon Master allow the PCs of a campaign to initiate mining ventures, the rules of this section provide a framework for governing the outcome of the enterprise.

Where to Mine

A wide variety of regions could yield something of value to the intrepid miner. As a general rule, a character with miner proficiency stands a chance equal to his Wisdom score (plus his miner proficiency modifier) of finding something of worth where he elects to dig.

Certain areas do not yield anything of value, regardless of the success of the proficiency roll. Examples of areas where mining is a waste of time include regions of deep sand or dirt, or areas of hardened lava. Of course, streams flowing through such regions might have brought traces of a valuable ore or a gemstone, but mining the ground itself is virtually guaranteed to yield nothing in these areas.

If a character with miner proficiency seeks to mine an area that the DM believes might yield valuable material, the character can make a Proficiency Check after thoroughly searching the area. Such a search requires at least a week of time under good searching conditions, and generally covers an area about four miles square.

Good searching conditions mean that the character cannot be fending off bandits or hunting for food while he is searching. A

deep snow cover makes such a search impossible, while even a thin coating of snow doubles or triples the time needed to search an area. Steady rainstorms, rough terrain, and even the short hours of daylight typical in wintertime can all interfere with the would-be miner's search.

When these or other adverse conditions exist, the DM must decide how much additional time is required before the area is suitably searched.

After this search is completed, the player is allowed to make a Proficiency Check for his character. If the roll is unsuccessful, so is the miner's search. He can repeat his search of the same area if he wants to, but the task grows more difficult.

The second time an area is searched by any character with miner proficiency, the character's chances of finding anything of value are rolled with a -1 modifier to the Proficiency Check. In addition, twice as much time is required to search the area the second time. If the attempt is made a third time, a -2 modifier applies to the Proficiency Check, and the search time is tripled. An area can be searched as many times as desired, with corresponding increases in penalties. Of course, after a certain point the modified Proficiency Check automatically fails, and further searches are fruitless.

If the Proficiency Check succeeds, however, the miner has discovered something of value within the area searched. Exactly what he has discovered is determined by Table 30: Mining Products.

Types of Mines

The types of mines that are commonly encountered in a fantasy world include placer mines and underground (or tunnel) mines. The strip mining common in the modern age requires heavy equipment not found in the typical AD&D® game campaign.

Placer mining involves sifting gravel, dirt, sand, and water from a flowing stream or river. Most commonly employed above ground, placer mining is a relatively simple mining operation. At its most basic level, the only requirements are a character with a shallow pan and a great deal of patience.

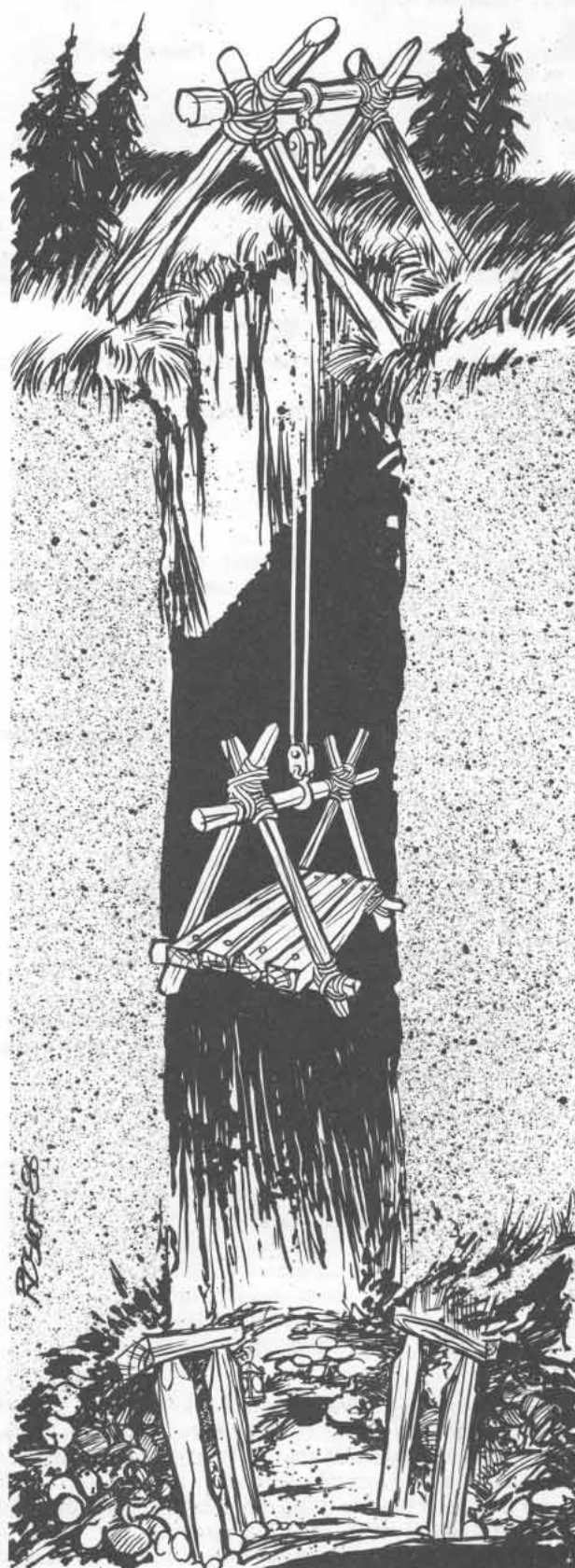
A placer mine gathers the mineral content of an underground vein of metal that has been eroded by water and has flowed downstream. It finally collects in some part of the streambed, where the miner separates it from the water. Because only the mineral wealth that has been eroded from the ground collects along the streambed, placer mining is not the way to discover a lode of significant value.

Operating an underground, or tunnel, mine requires a great deal more work than a placer mine—but the potential for wealth is much greater. An underground mine consists of a tunnel excavated into the earth. The rock that is dug from the tunnel is examined for riches.

Because this book deals solely with the underground, the rules on mining deal primarily with tunnel mining. Of course, placer mining is still possible along underground streams, but underground characters and creatures are much more likely to labor in the lucrative tunnel mines.

Excavating a Tunnel Mine

Excavating a tunnel is hard and time-consuming, but is necessary to remove the mineral wealth of the underdark. The rates for excavating various types of ground and rock follow (reprinted from page 106 of the *DMG*). These rates are given in cubic feet per miner per eight hour period.



SHORING A TUNNEL

Table 27: MINING RATES *

Race of Miner	Type of Rock		
	Very Soft	Soft	Hard
Gnoll, Halfling, Human	75	50	25
Gnome, Kobold	80	60	30
Goblin, Orc	85	65	30
Dwarf, Hobgoblin	90	70	35
Ogre	150	100	50
Hill Giant	250	150	75
Fire Giant, Frost Giant	300	200	100
Stone Giant	500	350	175

* Rates are in cubic feet/miner/eight hours.

The maximum number of miners that can work in a 10-foot-wide tunnel depends on race:

Dwarf, Gnome, Goblin, Halfling, Kobold: 16

Hobgoblin, Human, Orc: 12

Gnoll: 8

Ogre: 6

Giant (any): 4

A mine tunnel must follow the shifting vein of a mineral through the earth. Such a path typically requires a 10-foot-wide by 10-foot-high tunnel.

When a miner first discovers a mineral vein, roll 1d6. Multiply the result of this roll by 10; this is how far down (in feet) the tunnel must be dug to intersect the mineral vein.

Once the vein is discovered, mining can begin in earnest. To determine the path of the vein, roll 1d4, with the result indicating the direction of the vein's path as follows:

Table 28: MINERAL VEIN DIRECTION

D4 Roll	Vein Runs
1	North-South
2	East-West
3	Northeast-Southwest
4	Northwest-Southeast

The vein always runs at least 20 feet in the direction indicated. After each 20-foot section of tunnel is excavated, the DM should secretly roll 1d8 to determine the path of the vein.

Table 29: VEIN PATH ALTERATIONS

D6 Roll	Change
1	Steep descent
2	Shallow descent
3	Curves right (10-60 degrees)
4	Curves left (10-60 degrees)
5-6	Continues straight
7	Shallow ascent
8	Steep ascent

Miners who wish to continue working the mine must follow the vein, even if it goes in a direction they would rather not follow. If the path of the vein takes a course that makes it impossible to follow, such as emerging into thin air through a sheer cliff face, that particular course of the mine has run out. Of course, the miners are free to follow the vein in the other direction.

If both directions of a vein end, the mine provides no more minerals. This rule takes priority over the "Duration of A Mining Site"

rules (see page 53).

In unusual circumstances, such as a vein ending in a cliff with a facing cliff across a narrow gorge, characters may attempt to pick up the vein again across the gorge. The success of such an attempt is left to the DM's discretion; generally, the probability of such an occurrence is determined and a die rolled to see if the miners are successful.

Shoring A Tunnel

A tunnel mine must be regularly protected with wooden or stone support pillars, called shoring, or else sections of the tunnel will almost certainly cave in. Shoring can be accomplished by characters with carpenter, stonemason, or miner proficiencies.

As a general rule, each 10-foot section of tunnel requires two side braces and a ceiling brace. If the tunnel is the standard 10 feet wide and 10 feet high, this takes 30 feet of bracing that is at least one foot in diameter.

Each set of shoring supports takes four man-hours to construct. Unless the character doing the shoring is extremely strong (18/50 or greater strength), moving the braces into the mine requires additional manpower or animal help.

Products of a Mine

When a miner successfully locates minerals, the player rolls 1d100 and finds the result on Table 30: Mining Products.

Table 30: MINING PRODUCTS

D100 Roll	Product of Mine
01-30	Copper
31-40	Tin
41-66	Lead
67-84	Iron
85-92	Silver
93-97	Gold
98	Platinum
99	Mithril *
00	Gemstones **

* This indicates the possibility of mithril, the material needed to create elven chain mail. A mithril mine can only exist deep under the earth in the most solid of bedrock. If the locale of the mine is in such an area, the player rolls 1d10 and compares the result to Table 31: Mithril Check; otherwise, reroll on Mining Products Table.

** The player must roll on Table 32: Gemstones to determine what type of stones the mine yields.

Table 31: MITHRIL CHECK

D10 Roll	Metal Discovered
1-5	Silver (highest quality)
6-8	Gold (highest quality)
9	Platinum (highest quality)
10	Mithril

Table 32: GEMSTONES

D100 Roll	Type of Stone
01-08	Bloodstone
09-18	Onyx
19-24	Turquoise
25-30	Agate
31-36	Aquamarine
37-42	Garnet
43-48	Jade
49-54	Alexandrite
55-60	Amethyst
61-66	Topaz
67-72	Jet
73-77	Opal
78-82	Ruby
83-87	Sapphire
88-92	Diamond
93-96	Emerald
97-99	Roll twice on this table
00	Roll three times on this table

If a 97 or greater is rolled, the player immediately makes the additional rolls indicated. Any of these additional rolls that yields a 97 or better again grants the additional number of rolls. Thus there is no limit to the number of rolls that are possible if the player is lucky.

If a result yields the same substance twice, this should be noted (e.g., Jade x2). This means that the mine yields twice the usual amount of that mineral. The same level of quality applies to all of a single type of stone found in a mine.

Quality of Mine Products

Metals

The fact that gold has been found in a mine does not mean that a character can immediately begin to gather up armloads of gp and head for the moneychanger! First, the quality of the ore must be determined. Even the highest quality metals usually require some processing or purifying before they can be sold for their full value.

If the product of a mine is a metal, the mine usually yields the metal in its ore form; that is, heavily mixed with rock. A very pure vein that yields nuggets of pure metal may occasionally be discovered, but generally a character with smelter proficiency must process the ore to its pure metallic state.

The quality of the metal or ore equals the number of coins that can be produced from the metal mined by a single miner in a week. For example, a copper mine with a rating of 200 cp means that a single miner working the mine for a week produces a pile of ore that, when smelted, yields a grand total of 200 cp.

To determine the quality of metal gained from a mine, roll 1d10 and compare the result for the relevant metal on Table 33: Ore Quality. The result is the number of coins of metal the mine yields in one man-week.

Table 33: ORE QUALITY

Type of Metal	D10 Roll									
	1	2	3	4	5	6	7	8	9	10*
Copper	100	200	250	300	350	400	500	750	1000	2000
Iron	200	300	500	700	900	1200	1600	2000	3000	4000
Silver	25	50	100	200	300	400	500	750	1000	2000
Gold	10	25	50	100	200	300	400	500	750	1000
Platinum	5	10	20	40	75	100	250	400	800	1000

* If a 10 is rolled when determining the metal's quality, roll 1d10 again. If another 10 results, the product of the mine is a pure vein of metal, and requires no smelting to separate the metal from the ore. If a 1-9 results, the metal must be smelted normally.

If a character attempts to sell the ore without smelting, the selling price is no more than 25% of the value of the pure metal, and might be as low as 5% of the pure metal worth. The asking price depends on the difficulty that the buyer will have in transporting the ore and having it smelted.

The amount of coinage indicates how much metal is produced. This does not mean that the metal must be used to make coins. This is particularly true in the case of iron. One thousand coins worth of iron equals a full suit of plate armor, 100 spear points, or 500 arrowheads.

Gemstones

Just as the mined metal is in a rough form, gemstones fresh from the mine are not nearly as valuable as they are after finishing. Gemstones are rough and often unrecognizable when first discovered. Characters with miner or jeweler proficiency can correctly identify a stone after 1d6 turns of study; other characters simply see another rock.

The quality of a gemstone mine depends on the number of stones in the find and the value of each stone. As with metals, the number of stones is the amount that one miner can excavate in a week. The value of the stones is the average value for the finished stones. Of course, some stones are more or less valuable than this amount, but the average is accurate for calculating the income from the mine.

If the stones are sold unfinished, the selling price is no greater than 25% of the listed value, and might be as low as 10% of the listed value. As with metal, the true value here is determined by the difficulty that the purchaser will have in finishing the stones, as well as the bartering skills that are used to role play the negotiations.

The value of a gemstone find does not remain constant. Instead, the value is rolled each week to determine the worth of that week's output. However, the quality determined for the week applies to all miners working that entire week. The number of miners who work each week is determined before the dice rolls.

Table 34: GEMSTONE QUALITY

Type of Stone	# per Man-Week	Average Value
Bloodstone	2d10	20 + 10d6gp
Amber	1d10	6d100 gp
Onyx	3d10	10 + 10d6 gp
Turquoise	4d10	5d6 gp
Agate	4d10	5d6 gp
Aquamarine	1d10	10 x 5d6 gp
Garnet	1d10	100 x 1d4 gp
Jade	2d10	10 x 5d6 gp
Alexandrite	1d10	100 x 1d4 gp
Amethyst	1d10	100 x 1d6 gp
Topaz	2d10	100 x 1d4 gp
Jet	1d10	10 x 5d6 gp
Opal	1d10/3 *	200 x 1d6 gp
Ruby	1d10/3 *	200 x 1d8 gp
Sapphire	1d10/4 *	200 x 1d8 gp
Diamond	1d10/5 *	300 x 1d6 gp
Emerald	1d10/5	300 x 1d8 gp

* To calculate the number for these categories, roll 1d10, divide the result by 3, 4, or 5, as indicated, and round up.



HARPER

In addition to the base value calculated for the stones mined in a given week, a miner stands a chance of discovering an exceptional stone. Roll 1d100 each week the mine is operating. A result of 00 means that an exceptional stone is unearthed.

If an exceptional stone is found, the character who unearthed it can roll 1d100 and multiply the result by the average stone value for that week. This yields the value of the exceptional stone. For example, if the average value for the week's output of a turquoise mine is 20 gp, a result of 68 yields a turquoise stone worth 1,360 (20x68) gp.

Calculating the Value of a Placer Mine

As mentioned previously, placer mining generally yields less profitable results than tunnel mining. For purposes of these rules, the profitable mining of copper, iron, mithril, or any kind of gemstone with a placer mine is impossible.

Characters who have discovered gold, silver, or platinum deposits can try to mine these with a placer mine. To calculate the value of these finds, follow the normal quality determination procedure outlined on page 51. Then roll 1d4 and multiply the result by 10. This number is the percentage of full value that can be gained from a placer mine.

For example, if a gold mine is determined to yield 50 coins worth of gold per man-week, and the d4 roll is a 4, the mine actually yields 20 gp instead of 50 gp per man-week of mining.

Smelting Ore

A character with smelter proficiency can remove metal from ore. As with mining, only one character with smelter proficiency is required to run a smelting operation. Other, unskilled characters, can work under the supervision of the character with the proficiency.

The smelting of ore requires a fairly extensive collection of equipment. Because the ability to generate a very hot fire is crucial, smelters must have a bellows system as well as several unmeltable containers to hold heated ore. Most minerals require a coal fire for smelting, but some can be smelted by wood fires. A smelting operation produces much smoke and smell, so it is almost impossible to conceal. If done underground, the ventilation of the smelting area must be carefully attended, or the smelting fire is likely to consume all of the oxygen in the area.

Finishing Stones

Gemstones rarely require the complicated procedures needed to smelt ore from rock, although occasionally the application of heat is necessary to remove excess minerals or rocks that are crusted around the gemstones.

The usual finishing procedure for gemstones requires a character with gem cutter proficiency to cut and polish the stones. The drawback to this process is that a given character can only finish 2d20 stones in a day. Consequently, the rate at which the stones can be excavated usually greatly exceeds the rate at which they can be finished.

Duration of a Mining Site

A given mine always contains a finite amount of mineral wealth. Occasionally, this amount is enough to keep a mining crew busy for a lifetime or more; much more frequently, however, the mine plays out after a certain period of time.

To determine how long before a mine's wealth is depleted, the DM should secretly roll d100 at the start of the mining operation. The resulting number equals the number of man-weeks that the mine can be worked before depletion. If the resulting number was

doubles (e.g., 11, 22, 33, etc.), however, the mine has a much longer duration. Roll d100 again, and this time read the result as the number of man-months that the mine lasts, adding this figure to the number of weeks already determined.

If this second d100 roll also yields doubles, roll d100 a third time, and this time read the result as the number of man-years before the mine is depleted. Further doubles rolls are also rerolled to provide an additional number of years, until a d100 roll is made without a doubles result.

For the sake of convenience, treat each month as four weeks and each year as 48 weeks, or 12 months, when totalling up the mine's longevity. Note that man-weeks refers to the amount of work that one human miner performs in a week. If 12 miners are engaged in excavating a given mine, 12 man-weeks of the mine's lifetime are used up every week of the mining operation.

If the mine is a placer mine, disregard any doubles rolls for the duration of the find. Thus, a placer mine is always depleted after 1-100 man-weeks of work.

Inherent Hazards of Mining

Despite the tremendous amount of wealth that can be generated from a successful mining operation, this is definitely not a free lunch for avaricious player characters. Any mining operation includes an inherent set of hazards, and a very successful operation attracts additional problems almost automatically.

The Claim

The piece of land to be mined is often referred to as a claim, in that the miner claims the right to remove mineral or gemstone wealth from the ground. If the miner, whether player character or NPC, holds a clear and undisputable legal title to the ground in question, the claim is usually not a problem initially.

Except in the most civilized and well-developed areas, however, a clear and undisputable title to land is an uncommon occurrence in a fantasy world. If anyone holds title to a piece of land, it is usually a king or some other ruler who exhibits an understandable, if selfish, interest in the wealth of his land.

It might be possible for a character to gain a mining charter from a ruler, allowing the character to mine a given tract of land. In this case, a hefty percentage of the mine's profit must be turned over to the ruler. Such arrangements might call for as little as 25 or 30% to be claimed by the ruler, but more often require a 50% share to be turned over. The lower claims are only made if the ruler has a weak grasp on his kingdom and wishes to avoid conflict. A strong ruler always asks for 50% of the mine's products.

The ruler generally takes steps to insure that his fair share is turned over to him. These steps may include such tactics as placing a spy among the miners working the claim, surprise inspections of the mining site, or discreet observation of the operation from a relatively safe distance. Sometimes the character doing the smelting or finishing is in the employ of the ruler and loyally reports the exact amount of material processed.

If a miner is caught cheating his liege, the punishment is usually death. If a ruler is inclined to show exceptional leniency, the character might be allowed to live—perhaps even retaining all of his body parts—but he will certainly not be allowed to continue to operate the mine.

A claim made on a piece of wilderness land is free, at least initially, of the need to negotiate a charter with a ruler, but such claims have attendant problems of their own. Consider that the land is a wilderness most likely for one of two reasons: either the land and its denizens are too savage for settlements to exist, or no one has discovered any useful purpose for that piece of land.

HIRELING LOYALTY

It is not at all unlikely that a piece of land, thought for centuries to be worthless, could become highly sought after by many different rulers, should the land be discovered to contain valuable mineral resources. In this case, the PCs might find themselves embroiled in a war for control of the land. Whichever ruler ends up in control will no doubt wish to exact a tribute from the miners on his land. If the PCs have aided the winning ruler during the course of the conflict, it is quite possible that they will be allowed to continue to operate the mine with taxes going to the ruler. If the PCs actively opposed the winning ruler during the course of the war, there is very little likelihood that their claim will be recognized. At best, they might manage to flee with their lives and some small profit from operations up to that point.

Savage denizens present a fairly obvious hazard to would-be miners. Raiding monsters show no particular favor to PCs perceived to be trespassing on the monsters' territory. Of course, if the monsters are somewhat intelligent and not inclined to take over mine operations themselves, it may be possible for the PCs to negotiate some kind of arrangement with them, similar to the charter that might be signed with a ruler. However, monsters, particularly chaotic ones, have notoriously little respect for such agreements; they might easily cancel the agreement with no more notice than a battle-cry or surprise attack.

Even if an area is presumed to be wilderness, there is no telling who or what might think that they own it. To such landlords, legal or not, any kind of operations on their land are perceived as trespassing.

Another hazard of wilderness mining operations is that the characters have no legal protection for their claim. Such a claim is generally owned by whichever creature or party is most capable of holding it against other interlopers or claim-jumpers. The number of claim-jumpers climbs in direct proportion to the profitability of the mine, since the more money it makes, the more attractive it becomes to others. A mine that is producing considerable wealth might attract distant creatures or high-level characters whose only purpose is to try to take over the mine by force.

A commonly attempted but rarely successful tactic for preventing these headaches is for the miners to attempt to conceal the mine. This virtually never works in a settled area, and has only a limited chance of success in the wilderness.

Several problems must be overcome in order to conceal a mine from unwanted discovery. First, the mine itself must be hidden in such a way that it cannot be discovered by a creature that happens to pass nearby. Secret doors and piles of brush and twigs are commonly employed to hide a mine's entrance.

The tailings, or unwanted refuse from the mine's excavation, often give away the location of a mine. The standard procedure is to simply dump excess rock at the mouth of the mine and go back in for more. If characters exert great care, they might be able to spread the tailings over a large area and keep the mine's location a secret. The tailings could also be dumped into a river, lake, or deep pit. This requires more effort than the actual digging of the mine, however; if miners attempt to scatter the tailings, the rate of mining is no more than 25% of what it could be if all of the workers were actually mining.

The noise involved in chipping away at the stone of the mine can provide clues to its location, especially to creatures of the Underdark. Few things are as disconcerting to a group of miners as to have a bulette burst into the tunnel between the miners and the outside world.

If the mine is located next to a smelter, the characters had better abandon all hope of concealing the mine. The smelter produces such clouds of smoke and such a pervasive odor that concealing the claim is all but impossible except in the most remote and uninhabited areas.

Even if the miners manage to operate the mine in complete secrecy, amassing a considerable fortune in mineral wealth, the

disposal of this wealth becomes a problem in itself. Characters who brazenly stroll into town, visit the moneychanger, and ask to convert 100 pounds of solid gold into coinage are certain to raise a few eyebrows. Such reactions might be even more pronounced in the case of a gemstone mine. Any NPCs getting wind of the valuable claim could attempt to follow the characters back to their mine, or take other steps to learn its location.

Hireling Loyalty

In all likelihood, a PC or group of PCs cannot run a mining operation by themselves. Even if the party has a character with miner proficiency to supervise the work, finding enough strong arms to excavate a large mine usually requires hired help.

In fact, if the mine's claim is one of questionable legality, or if a sudden attack by monsters is a possibility, skilled adventurers are better used as scouts and guards for the mine, while low-level laborers perform the actual excavation.

Hireling loyalty is not a significant problem in an iron or copper mine, but if a precious metal or gemstone find is being exploited, employees are presented with a great opportunity to steal from their employers. A hireling NPC's reaction to this temptation is made through the standard Loyalty Check procedure outlined in the *DMG* on page 36.

For this Loyalty Check, treat the foreman of the mining operation as the liege when determining modifiers to the roll. Additional modifiers of + or - 10% can be applied to reflect the state of the mine's security. For example, if all miners must submit to a search after a shift of work, the check would gain a +10% modifier, since this would deter the NPCs from theft. If, on the other hand, no PCs are present as the miners leave the mine after a shift, their loyalty rating might suffer a -10% modifier.



For purposes of loyalty modification, the evaluation of the NPC's pay should be based on the value of the mine. If a miner excavates 1,000 gp worth of diamonds in a week and gets paid 20 gp—even though this might be a very good wage—the NPC is likely to feel that he is underpaid.

If the Loyalty Check fails, this does not mean that the NPC immediately fills his pockets with whatever valuables are at hand and makes a break for the high country. The DM must consider the Intelligence of the NPC and concoct a suitable plan for the theft. Only workers with low Intelligence, perhaps 8 or less, attempt a theft with no planning. If the NPC has exceptionally high Intelligence, he will go to great lengths to prepare for the theft and to either ensure his getaway or conceal the fact that the theft has occurred. The thief steals 1d6 x 10% of his daily output.

Natural Hazards

Some potential problems are inherent in any kind of underground excavation, and mining is no exception. Prominent among these are the twin dangers of flooding, and cave-ins.

Flooding can occur in a mine if the excavators accidentally tap into an underground body of water, or if the depth of the mine drops below the water table. The chance of digging into an underground body of water depends, of course, on the proximity of such bodies. The best way to adjudicate this possibility is for the DM to have a carefully drawn map of the area around the mine, including any concentrations of water. As the characters excavate and expand the mine, the progress of the various tunnels should be noted with care on the DM's map. If one of the tunnels should drive into a body of water, the mine floods rapidly. Any characters below the level of the water have a very difficult time escaping. Characters at the level of the flow have to race the water to the nearest exit, while characters above it should be able to make an escape with relative ease. After this kind of disaster, a mine is very difficult to work unless some means can be found to drain or pump the water away.

Any mine that reaches down to the water table or lower slowly fills with water. While this situation is not life-threatening, it is serious enough to close a potentially rich mine unless some means of removing the water faster than it flows in can be devised.

Cave-ins can be partially prevented by proper shoring of the tunnel, but cannot be eliminated entirely. A tunnel that has been shored at every 10-foot interval stands only a 2% chance per week of suffering a cave-in. A tunnel with no shoring whatsoever runs a 50% weekly chance of suffering a cave-in. If the tunnel has been partially shored, the DM must calculate a percentage chance of cave-in based on these two extremes.

External forces can occasionally increase the chances of a mine caving in. An earthquake might add 1d4 x 10% to this chance, while a heavy rain or flood would increase the chance by 1d3 x 10%. Burrowing creatures such as umber hulks and ankhhegs increase the chance by 1% per hit die of intruding monsters. The location of the cave-in is randomly determined. The DM designates one end of the mine as 01, and the other as 100, and rolls d100. The resulting number indicates where along the path of the tunnel the cave-in occurs. For example, if 01 is the tunnel mouth and 100 is the terminus of the shaft, 1200 feet into the earth, a d100 roll of 30 indicates a cave-in about 360 feet from the entrance to the mine.

Cave-ins automatically bring down a section of ceiling 20 feet long and 10 feet thick. Chain reaction cave-ins should be checked for normally.

Unnatural Hazards

A common element of most fantasy campaigns, and particularly those that focus on the Underdark, is the unnamed evil lurk-

ing deep within the earth. The exact nature of this encounter is a matter for the DM or designer's creativity, but it should be remembered that many things are possible in a world where magic is common.

Perhaps the excavation of the mine has penetrated some long-forgotten burial ground, awakening its hideous undead denizens. Maybe deep-dwelling monsters have become concerned about the penetrations of surface dwellers so far under the earth. Of course, races of the Underdark such as the drow and the duergar tend to regard its mineral wealth as their own and look jealously upon any blatant attempts by outsiders to exploit this wealth. In this case, the threat of intervention goes up in direct proportion to the value of the mine.

Although gates to other planes are not generally open for characters to simply pass through, it is possible that the vigorous efforts of miners might discover such a gate. The miners might inadvertently pass through to another plane or—much more likely—some horrid denizen of the lower planes might find itself a path into the world through the convenient avenue of a deep-plunging mine tunnel.



NEW EQUIPMENT

COSTS AND WEIGHTS

Several new types of equipment are introduced in the *Dungeoneer's Survival Guide*. While primarily intended for underground exploration, the items mentioned below can be used in any AD&D® game campaign. New equipment is listed with its average cost and typical encumbrance. Descriptions of the equipment follow the lists. Specific uses of some of this equipment are explained under the rules for climbing, mining, and underground water travel.

Table 35: EQUIPMENT COST AND WEIGHT

Type of Equipment	Cost	Weight
Air bladder	15 gp	20 gp
Basket, large (bushel)	5 sp	80 gp
Basket, small	2 sp	40 gp
Beacon	40 gp	200 gp
Birdcage	5 sp	50 gp
Box, small gold	100 gp	20 gp
Box, small lead	20 gp	20 gp
Crampons	40 gp	50 gp
Crowbar	3 gp	75 gp
Drill, iron	5 gp	50 gp
Grappling hook	75 gp	75 gp
Lantern, waterproof	50 gp	50 gp
Lard, pint	5 cp	20 gp
Oil, waterproofing	1 gp	20 gp
Pickaxe	20 gp	200 gp
Powder, chalk	2 sp	20 gp
Pulley	25 gp	60 gp
Reed, hollow	1 sp	1 pc
Shovel	10 gp	180 gp
Whistle	1 sp	1 pc

Transportation

Boat, collapsible	500 gp	600 gp
Canoe, small	100 gp	800 gp
Canoe, large	300 gp	1,600 gp
Kayak	250 gp	500 gp

Equipment for Proficiencies

Animal Trainer	100 gp	1-20 acres
Armorer	1,250 gp	20' x 20'
Blacksmith	1,000 gp	30' x 30'
Boatwright	1,000 gp	50' x 120'
Bowyer/Fletcher	250 gp	20' x 20'
Carpenter	400 gp	Varies by task
Gem cutter	2,225 gp	15' x 15'
Leatherworker	300 gp	15' x 15'
Miner	750 gp	Varies
Potter	600 gp	20' x 30'
Smelter	2,000 gp	50' x 50'
Stonemason	250 gp	Varies
Weaponsmith	1,500 gp	40' x 30'
Weaver	500 gp	30' x 30'

NEW EQUIPMENT DESCRIPTIONS

Air Bladder: This is an airtight leather sack that can aid characters in many varied situations underground. The bag has two principal purposes: as a flotation device and as a very limited air supply container.

When used for flotation, an air bladder is filled with air and held by a character in the water. Air bladders generally have several straps for just such a purpose. A character holding an air bladder does not have to exert himself to remain afloat, nor does he need to be able to swim. By kicking, the character can move at 1/3 of his normal swimming speed. Of course, the effects of hypothermia can still endanger characters using air bladders.

The secondary function of an air bladder is to provide air to a character who might otherwise suffocate or drown. If the character is resting, an air bladder can provide him with enough air to last a full turn. The rate of air consumption increases at the proportions described under the Air Supply rules (page 36) when the character exerts himself.

Baskets: These woven containers are not waterproof, but hold most nonliquid substances. Each basket comes with a lid that can be latched tightly.

Beacon: A beacon is essentially a very bright lantern that is too large to be carried by hand. It must be mounted on some kind of structure, such as a building, wagon, or boat.

A beacon can project light in a cone shape up to 240 feet from its source. The cone is only two feet wide at its source, but broadens into a 90-foot-wide fan at its extreme end. Because of its high output, a beacon burns a pint of oil in 10 turns of operation. A beacon can be tightly shuttered so as not to emit even a trace of light.

Birdcage: This is a wicker cage, capable of holding up to three songbirds. It is about 18 inches high and one foot in diameter.

Box: These small metal boxes are completely light proof and airtight when sealed. They are useful for storing items that a char-

acter does not wish subject to magical inspection. Boxes also serve as handy containers for gems or other objects that have been enchanted with *permanent light* spells.

Boxes are about two feet wide, two feet long, and 1 1/2" deep.

Crampons: These are iron spikes that can be attached to a character's boots. Their function is to provide better footing on ice or other slippery surfaces.

Drill: This iron tool can slowly bore a hole through wooden or stone barriers. The hole is about one inch wide, and up to nine inches deep. A character, by heavily exerting himself, can drill through one inch of wood in a turn, and one inch of stone in three turns. When in use, the drill makes a grinding noise that is audible up to 120 feet away.

Grappling hooks: These two- or three-pronged hooks are designed to be thrown at a surface that the hooks catch on to. A rope is nearly always attached to a grappling hook.

Lantern, waterproof: This is a tightly enclosed lantern that produces an amount of light equivalent to a normal lantern. The waterproof lantern contains a flame that is carefully shielded against water dousing and gusts of wind.

If a waterproof lantern is taken underwater, the area of illumination is reduced to a 10-foot radius instead of the normal 30 feet. While water does not extinguish the flame, it is soon extinguished because of lack of air when underwater. If a waterproof lantern is submerged, the DM makes a secret d6 roll. The result is the number of rounds the lantern continues to burn.

Lard: This common substance is occasionally employed as a lubricant to help large objects, including characters, squeeze through small holes. A character who has been smeared with lard can squeeze through a passageway that is only 80% as wide as the minimum passage needed, as explained under the movement rules (page 21). Lard is also mildly flammable, but unlike oil, it burns too stubbornly to function as a weapon. When smeared with lard, a character who sustains any damage from a fire-based attack suffers 2 hp extra damage per round for 1d6 rounds.

Lard can also serve as an insulating coating for swimmers who enter very cold water. See the hypothermia rules (page 42) for exact effects.

Oil, waterproofing: This type of oil is harvested from creatures who have developed very effective insulation systems. Seals and minks are common sources of waterproofing oil. One pint of oil is enough to thoroughly coat two square yards of leather or wool material. Cotton material cannot be effectively waterproofed.

When a material has been treated with waterproofing oil, it completely repels water for 1d6 + 6 turns if the water is pouring or showering onto the material (as in rain). If the material is immersed in water, it remains completely waterproof for only 1d6 turns. If the material starts to leak in either case, it grows slowly wetter for 1d6 turns, after which time it is completely saturated.

Pickaxe: This essential ingredient of every miner's kit is required if characters are to excavate at full efficiency (the excavation rate is only 1/2 of maximum without pickaxes). In desperate conditions, a pickaxe can be used as a weapon. In addition to normal nonproficiency penalties, a pickaxe used as a weapon suffers an inherent -2 on all attack rolls because of its unwieldiness. If the blow lands, however, it inflicts a hefty 1d10 points of damage to small or medium creatures and 1d20 points of damage against large creatures.

Powder, Chalk: This is a white powder that can be used for a wide variety of purposes, limited only by a player's imagination. A single container holds enough chalk powder to thoroughly cover a 20-foot-square section of floor, or up to eight human-sized characters. If the powder is scattered on the floor, any creatures walking through it leave footprints. When hurled through the air or smashed against a wall, it creates a 10-foot-diameter cloud of dust that settles on all creatures within the area. Thus, invisible

creatures can be discovered, and creatures or objects that are too dark to easily distinguish can be made lighter in color.

Pulley: This simple machine is typically purchased with a wooden block and a sturdy hook at the top and bottom. In addition to standard pulleys that accept only one loop of rope, there are pulleys that accept two or even three loops of rope.

A single pulley allows a character to change the direction of force when lifting or moving something. For example, by pulling down on a rope, you can lift a heavy weight up. Two single-rope pulleys allow the direction of force to be changed, and double the amount of weight that can be lifted. Two double-rope pulleys quadruple the amount a character can lift. Two triple-rope pulleys increase a character's lifting ability by six times. Of course, very solid means of attaching the pulleys must be found before they can be used effectively.

Reed, hollow: This is a slender straw that, if used carefully, enables a character to breathe while completely submerged under water. The reed is inserted into a character's mouth, and his nose is sealed with wax or by other means. By lying on his back with the straw sticking up like a small periscope, the character can remain underwater and breathe.

Because of the character's upside-down position, it is very difficult for him to remain concealed while moving. The maximum a character can move is 1/3 of his normal swimming movement rate. In addition, if a character attempts to move while breathing through a reed, he stands a 10% chance per round of creating a tell-tale ripple on the surface of the water. If the character simply floats with the current, however, no such risks are entailed.

Shovel: This is another item standard to every miner's supplies. If a group of characters lacks shovels, the amount of excavation they can accomplish in a day is reduced by 50%.

Whistle: This is a simple device of hollowed wood, bone, or reed. When blown, it creates a piercing sound audible up to 1,000 feet away.

Transportation Equipment

Collapsible Boat: The hull of this craft is made of skins and the frame is a folding series of wooden spars. This boat folds down into a package that can be carried in a backpack, although such a load fills the backpack. It can be unfolded into a shallow boat (equivalent to a small rowboat) in 1d3 turns, and can be folded back down in an equal amount of time. If carried when wet, the collapsible boat weighs twice the listed amount.

Canoe: This small boat is designed for light loads and easy paddling. It is much swifter and more maneuverable than a rowboat, but is also more susceptible to capsizing. A canoe can carry three characters with normal gear or two characters with heavy gear. Large canoes can hold nine characters with normal gear or six characters with heavy gear.

Kayak: This one-character craft works very well in rough or cold water. The kayak has a layer of oilskin completely surrounding its frame (except for a small opening for the kayaker), so even capsizing does not cause it to fill with water.

Equipment for Proficiencies

The list of equipment for proficiencies provides the initial cost of the equipment needed to begin work, and the minimum amount of space that the operation requires. If the necessary space is not available, the proficiency is only partially effective.

The costs given do not include raw materials that characters must buy before they can begin to use most proficiencies. An armorer or blacksmith, for example, needs to have a supply of iron, as well as hardwood or coal for his forge. The cost of raw materials is 11-20% (1d10 + 10) of the value of the finished work.

EQUIPMENT FOR PROFICIENCIES

The following descriptions provide brief introductions to the various proficiencies. Interested players are encouraged to learn more by reading of these arts during medieval times.

Animal Trainer: This character needs little in the way of specialized equipment. At the most, a few harnesses or leashes may be necessary. The training of most types of animals, however, does require a great deal of room. Generally, some kind of outdoor space is necessary. If an animal trainer elects to raise or board animals at the same time, he must also supply shelter and food for them.

Armorer: An armorer requires a small forge, several hammers, and at least one small anvil. A collection of metal files is also necessary. Since the armorer needs an especially hot fire to melt the high-quality iron and steel used in most types of armor, good ventilation and exhaust must be provided.

Blacksmith: The blacksmith's craft requires much the same equipment as the armorer's, except that the blacksmith needs a greater assortment of each sort of tool. Many of these tools are of much greater size than those of the armorer. On the other hand, the blacksmith usually works with a cruder grade of iron than the armorer, does, and consequently his tools do not have to be of such high quality.

Boatwright: The boatwright needs to make a major investment in tools or facilities, and needs to choose his location with care. With the exception of kayaks, canoes, and small rowboats, boats must be built close enough to a body of water that they can easily be launched. The amount of space a boatwright needs is roughly equal to the size of the boat being built, plus 10 feet in all directions. The tools of the boatwright include all carpentry tools plus pitch or tar.

Bowyer/Fletcher: This is another profession that requires little in the way of tools beyond an assortment of knives and vises.

Carpenter: The carpenter needs an assortment of woodworking tools, including hammers, spikes, axes, and chisels.

Gem Cutter: This character needs a collection of finely tooled chisels, hammers, and vises. Good light sources are also important. Most gem cutters keep sturdy safes or strongboxes to protect their valuable materials.

Leatherworker: The tools of the leatherworker include punches, needles, knives, scissors, and oils for treating the leather.

Miner: The amount of equipment needed by a miner varies considerably with the type and size of the mining operation. A character who simply intends to pan for gold in a stream needs little more than a shallow pan and a container for his findings.

A tunnel mine involves a great deal more work and equipment. Picks and shovels are needed to excavate the ore, and timbers, hammers, and spikes are necessary to shore the tunnel. If the tunnel is long, a few mining carts are probably needed to help move the ore. As the tunnel grows, so does the need for equipment.

Potter: A potter's operation can be quite small, the largest object being the kiln. The size of the kiln limits the size of the objects the potter can make.

Smelter: A character pursuing this vocation must set up a large, sophisticated, and rather expensive operation. An efficient furnace capable of creating extremely high temperatures is central to the smelting operation. A bellows system, usually operated by an individual, is necessary to fan the fire. A system of feeding the ore into and removing it from the fire is also necessary. This might be a series of iron buckets that slide along a rail or track through the furnace, or a huge cauldron or stone trough.

Stonemason: Like a carpenter, a character with this proficiency usually goes where there is work. The most limiting factor of the mason's task is the availability of stone. Often stones can be gathered in the immediate area where they are needed. Usually a stonemason maintains or has access to a sturdy wagon and a few oxen, so he can transport his materials if need be.

Weaponsmith: This character needs to maintain a small blacksmith's shop, with an additional array of tools for finishing the fine detail work required in putting edges and ornamentation on weapons.

Weaver: A weaver can do his work in a very small area. If the wool or cotton must be spun by the weaver, then the area listed on the table is needed. A weaver's initial costs include a spinning wheel and loom.



IMPROVING PLAY

Both beginning and experienced players become used to game habits that can cause problems for the adventuring party, and make the game less fun than it could be. This section contains playing recommendations that can relieve these difficulties. It is intended for players who wish to improve their level of play.

These tactics are grouped into three categories: expedition planning, speeding play of the game, and effective fighting.

Expedition Planning

Many times the success or failure of an adventuring expedition or quest is determined before the party leaves its base of operations. More often than not, it is the party's failure that is thus determined, for they have failed to take some vital feature of the adventure into account, or have neglected to bring along some essential piece of equipment or information.

Scouting and Information Gathering

Before a group of characters leaves on an expedition, they should make strong efforts to learn everything possible about the adventure's setting. Interviews with NPCs, exploring the approaches and periphery of the goal, and using magic to gain insight into the party's objectives and potential obstacles can all save great headaches later on.

When seeking out and talking to NPCs about the adventure, the need for secrecy must be balanced against the likelihood of gaining useful information. Even rumors should not be disregarded, for often such talk has a basis in fact. If rumors or hearsay indicate the presence of a certain kind of monster, then appropriate measures should be taken if possible. If someone reports hearing of basilisks slithering through an underground locale the PCs wish to explore, then wise characters bring along a few mirrors.

Scouting as much of the area as possible before entering it is another sound tactic. A scouting mission should comprise characters traveling much more lightly than they normally would, and the typical tactic of a scouting party is to avoid combat at all costs. One or two thieves, possibly aided by *invisibility* spells, *potions of gaseous form*, or some other magical protection can discover a great deal of information for the party.

Don't forget to scout during the course of an adventure either! The commonplace action of listening at a door before smashing it open is a scouting function. Whenever possible, at least one character should get a look at an area that the party will be entering before the whole group gets there. This not only reduces the risk of ambush, but also greatly increases the tactical options available to the group if they find themselves engaged in combat.

Type of Expedition

An underground expedition of any length should entail considerable planning and preparation. The objectives of the mission, the length of time it should require, and the areas to be explored all need to be considered.

The objective of an adventure is often a result of the story that a DM has created. Ideally, the objective is a task that motivates the

PCs toward its accomplishment—if not, the adventure is off to a bad start already!

The PCs must be prepared to climb or descend cliffs, cross water (by swimming or boat), provide light sources, feed themselves for an extended period of time, and still be able to return to the surface. Smart adventurers carry more food than needed. This way, if opportunities for further adventuring or exploring arise in the midst of the expedition, characters are not restricted by supply considerations.

The type of transportation that the expedition employs is worth serious discussion. Of course, if the going is extremely rough, with much climbing down steep surfaces and squeezing through narrow passages, the characters must almost certainly travel on foot, carrying all of their belongings in backpacks.

Waterways often provide easy access to underground regions far from the surface. Characters traveling by boat can carry a great deal more equipment than those walking, and can travel faster and easier than their land-bound counterparts. Water travel incurs its own set of risks, however, and underground waterways in particular are notoriously dangerous and unpredictable. A placid stream can suddenly turn into a churning cascade or disappear through a small crack, effectively blocking further exploration.

Where water is unavailable, but the going is relatively smooth for long periods, characters might consider aiding their expedition by using beasts of burden. Mules are the most commonly employed animals in this capacity, but dogs can also carry some weight in saddlebags. Dogs provide the additional advantage of guarding the party during periods of rest, and increase the group's attack potential as well.

Using Beasts of Burden

Mules

As mentioned in the *Monster Manual*, mules are somewhat reliable supply mounts. Up to 2,000 gp of weight, evenly distributed in saddlebags, does not encumber a mule. The animal has no problems walking as far as any character. If more than 2,000 gp, up to the maximum of 6,000, is carried, the mule travels at 1/2 speed and refuses to walk for more than eight hours a day.

There is a 50% chance that a mule can be persuaded to jump a chasm that is six feet wide or less; a mule will never jump a wider gap. If the die roll indicates failure, the mule cannot be persuaded to change its mind about the obstacle before it. A mule never jumps when carrying more than 2,000 gp of weight.

A mule can walk down stairways that are of average steepness, and can also climb stairways that are of average steepness, or even a little steeper. There is a 50% chance that a mule can be persuaded to climb or descend a very steep slope. A mule can keep its footing as well as a human. If a slope requires characters to use their hands to climb or descend, the slope is too steep for a mule.

A mule swims fairly readily, and jumps from a height of up to six feet to enter water. There is a 90% probability that a mule is willing to perform one of these tasks. Again, if loaded with more than

FIGHTING EFFECTIVELY

2,000 gp, however, the mule refuses to enter the water. A swimming mule travels at a rate of 3" per round.

When mules are traveling in a string, all of the mules follow the leader. Thus, if the leading mule agrees to perform one of the above tasks, the others automatically follow. If the leader refuses, the PCs can unhitch the leader from the string and check for the second mule in line (now the leader of the string). The old leader does not change his mind even if all the other mules proceed.

As mentioned in the *Monster Manual*, mules tend to be very jittery when exposed to strange smells. If a mule is alarmed by an odor, it might bolt away (25% chance), begin to bray in panic (25% chance), freeze in place (25% chance), or continue to function normally (25% chance). If a group of mules is involved, a single check is made to determine the group's reaction, so all of the mules bolt, bray, etc.

When walking on stone, mules make even more noise than characters clinking along in plate mail. Normally this noise is audible to a distance of 360 feet. If characters wrap leather or cloth boots around the hooves of the mules, this distance is reduced to 90 feet. Such muffles must be replaced daily, however, so it is impractical to muffle the hooves of mules for weeks on end. A party employing mules can always be followed, for obvious reasons.

Dogs

Dogs are less commonly employed than mules as beasts of burden, but offer some advantages over their hoofed counterparts. Of course, a dog can carry much less weight than a mule. The dogs described in this section are all varieties of the war dog, as defined in the *Monster Manual*. These dogs generally weigh about 100 pounds, and resemble large members of modern breeds such as German shepherds (Alsations), malamutes, or wolfhounds.

A dog must have some training before it can serve as a pack animal, as described under the animal trainer proficiency. When a dog that meets this minimum standard is fitted with small saddlebags, it can carry up to 200 gp without suffering penalties to movement or combat. A dog can be loaded with up to 500 gp of weight, but only moves at half speed, and suffers a -4 modifier to all attacks. In addition, a dog carrying more than 200 gp is unable to swim or climb steep slopes.

Dogs can negotiate slopes of the same steepness as a mule. While dogs do not panic and flee at the hint of an unfriendly odor, they have an opposite and equally troubling tendency to attack anything that does not belong to their party (50% chance unless the dogs are physically restrained). If the roll for restrained dogs indicates that they would attack if they could, the dogs instead bark loudly and savagely.

If a dog has successfully completed advanced training as described under the animal trainer proficiency, it is much more disciplined in such situations and does not attack or bark unless directed to do so by its master. A dog with advanced training can be trained to respond to hand signals as well as verbal commands; however, the dog must be able to see a hand signal in order to respond to it.

Dogs do not have infravision, but their keen senses of smell and hearing aid them in darkness. A dog's penalties for attacking, damage, and AC in complete darkness are all -2 instead of -4.

Using Watercraft

The various boats that can be used to carry a group of PCs have fairly obvious merits and disadvantages. While the kayak is certainly the most nimble craft and is capable of handling the roughest water, all characters must have proficiency in the use of

small boats for a kayak expedition to succeed.

Larger craft have the advantage of greater cargo capacity, and keep the PCs together in one boat, but have much more limited utility in rough or narrow waters. Collapsible boats allow for flexible planning since they can be carried overland for stretches, but they are bulky and difficult to carry for long distances, and are not as sturdy as other vessels.

If a waterborne expedition is planned, scouting becomes even more important than usual. The nature of the waterway must be ascertained as far ahead as possible to prevent disastrous surprises. In addition, remember that if a current is relied upon to move a party in one direction, some other means of return must be arranged.

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As a general rule, characters fight more effectively if they have been together for a long time. This is a natural outgrowth of experience, as each character's strengths and weaknesses are revealed, and trust, as companions learn to rely on each other. While trust must be developed over time, a party can practice cooperative fighting techniques from the very start.

A well-organized party defines roles for all characters to fill during combat. Ideally, these roles are suited to the characters' strengths. At the most basic level, this involves keeping the fighters with low Armor Class between the monsters and the rest of the party.

More sophisticated planning should include some simple tactical plans for different situations. If a party is retreating from a foe in the middle of a melee combat, which characters take the rear guard? What spell might the magic-user employ to confuse or discourage pursuit? Who is responsible for scouting a safe path of retreat?

Often characters benefit by forming mini-teams within the party. A given fighter, for example, might act as a bodyguard for the magic-user. The mage can then cast spells to benefit the entire group, or use magic that benefits the bodyguard. Another fighter might routinely create a diversion at the start of a combat, drawing a monster's attention away from a thief who is waiting for a chance to sneak behind the foe.

Probably no single tactic is as important as surprise. Effective scouting, of course, is the best way for a group of characters to avoid being surprised, while moving silently without light sources is the best way for PCs to surprise an opponent. Ranger characters are the least susceptible to surprise and the most likely to cause surprise, but human rangers underground suffer grievous disadvantages because of their lack of infravision. Half-elven rangers are very effective in this environment.

Creating Diversions

While surprise primarily depends upon keeping a party's presence secret from the opponent, it is not always necessary to conceal the party. A diversion created by the party or simply taken advantage of at an opportune time can so distract a foe that the PCs can approach with little regard for stealth.

Diversions can be accomplished with any of a wide variety of magical spells, as well as other character actions. A single character, for example, can take upon himself the task of drawing the attention of a group of monsters away from the rest of the party. Fires are excellent diversions since they often require the immediate attention of the monsters in order to prevent the flames from spreading. Other acts of sabotage, such as collapsing a bridge, tunnel, or dam, can often be devised. Clever characters might even work out remote control systems for diversions: a long rope, for example, might be tied to a statue and yanked to topple it. Alerted by the crash, the monsters' attention is naturally

directed to the statue rather than the PCs. Of course, if intelligent monsters notice the rope, the plan does not work as well.

In fact, monsters—particularly intelligent ones—do not automatically fall for diversions. In most cases, monsters with reasoning ability but generally low intelligence, such as orcs and ogres, direct their attention toward a diversion for 1d4 rounds unless something else attracts their attention. Monsters of medium to high intelligence should be allowed a saving throw vs. spell to see whether they are fooled by a diversion. Monsters of genius level intelligence can only be fooled by very clever diversions in which the PCs' presence is not easily discerned.

Player characters never get a saving throw if a monster uses a diversion against them. Whether the PCs fall for a diversion or remain alert to a surprise attack is purely a matter of role playing.

SPEEDING PLAY

The pace at which a gaming session proceeds is in many ways a matter of group taste. Many players wish to advance the plot of the adventure rapidly, with few sidetracks; others much prefer savoring each experience as a role-playing event, making all or most of the decisions possible for their characters, regardless of how mundane. This diversity is healthy, and represents one of the strengths of role-playing gaming.

Wasted time, on the other hand, is a bane to all campaigns, regardless of the pace of the adventure. Squabbling among players, failure to cooperate, and incessant arguing with the DM are common causes of wasted time. So, also, is failure to decide upon a course of action.

The rate of play can also be increased by parties who have adventured together a few times, if the players prepare a series of standard procedures for common problems. Open doors procedures can be adopted and standardized, for example. Players should prepare a rough sketch showing the location of each PC during a door-opening attempt. The role of each character (such as guarding the rear, picking the lock, or ready to shoot an arrow into the room) should be carefully defined for the DM. Then, when a door-opening situation arises, the players simply declare that they are using their door-opening drill (or "door opening drill #2") and the DM does not need a statement of intent from each of them.

In addition, standard marching orders for most common types of environments should be prepared and sketched. Players should plan for corridors of various commonly encountered widths, as well as large areas where the walls to either side are distant. Players may also wish to note standard weapons carried while marching. None of these preparations mean that the PCs are locked into one procedure all the time. Changes in standard plans simply need to be communicated to the DM. Remember, however, that it is much easier to communicate such changes than to continually give a description of what is essentially the same marching order.

The idea of the caller—the character who declares the actions of the whole group—has been dropped from many role-playing games. Often, when characters are first learning to play, no single character is quite ready to be an effective caller. Other beginning players may feel that the caller prevents them from getting the full gaming experience.

If your group does not employ a caller, and players experience frustration at the rate of play, perhaps the idea should be re-examined. Experienced players have a much easier time delegating the tasks of caller to one member of the party while maintaining the involvement of all the characters. The caller can serve a vital function in keeping the party moving and avoiding those lulls where no one wishes to make a decision. This method works best when the task of caller rotates through the group, changing every game session.

Arguing, whether with the DM or with other players, is a harder problem to deal with. If a player attempts to dominate play, ordering other characters around or summarily vetoing courses of action suggested by other players, peer pressure is probably the most effective method of changing this player's behavior. If the other players, including the DM, can point out the effect of the bossy player's pronouncements, he might well be persuaded to stop.

CREATIVE UNDERGROUND SPELL USE

Many AD&D® game spells have obvious applications either above or below ground. Others are developed through play or experimentation.

It is always wise to have all spellcasters in a party briefly discuss their spell selections, so that the party winds up with a balanced selection of offensive, defensive, restorative, investigative, and scouting spells. Be sure to consider the applications of reverses of spells that are reversible.

Finding uses for spells that often go unused can be a lot of fun for a creative spell-caster. Some tactics that have worked well in a variety of campaigns are provided here; try to invent more of your own.

Look over the lists for spells that you might have discarded at an early level as less useful than others. *Augury*, *divination*, and *find the path* spells can be very useful in the underground. Do not overlook the protective benefits of *magic mouth*, *glyphs of warding*, *fire traps*, and *rope tricks* when preparing to go to sleep. In an underground environment, *cloudkill*, *stinking cloud*, *dig*, *transmute rock to mud*, and *disintegrate* spells can all prove deadly to an enemy. When a party occupies the high terrain in an underground setting, a timely *raise water* spell can call down a sizable flood, while a *lower water* spell can cause serious problems for enemy boaters. *Enlarge* spells often provide an effective means of blocking a passageway, and *reduce* can serve as a means for removing a barrier. *Warp wood* can have a similar effect upon doors.

One technique used to good effect in several campaigns is the *silence* spell cast upon a coin or small gem. When carried, the enchantment benefits the party. In an encounter, the coin can be thrown among enemy spellcasters to silence their efforts at spell use.

Darkness is an effective spell if a party of humans without a light source encounters creatures with infravision. If characters are proficient in blindfighting, the aid of the *darkness* spell (which of course blinds infravision as well) can be quite dramatic.

Creative uses for spells such as *telekinesis* are not hard to come by. For example, a character might seal green slimes and other deadly creatures into clay or wax pots. Using *telekinesis* to position them over the enemy, the pots could then be dropped, with the monster serving as a deadly missile weapon. Of course, such pots could be hurled without the use of a spell. Likewise, clay pots loaded this way could be left in the attacker's path and then broken with *shatter* spells.

Most players understand the value of questioning monsters and other enemies that are captured. The use of *charm* spells can aid this process immeasurably.

While offensive magic is often quite effective, it, too, can be augmented with some creativity. *Walls of stone*, *ice*, and *iron* can be cast in such a way that they immediately topple and crush monsters within the area of effect. Ricocheting a *lightning bolt* can cause dramatic, if somewhat unpredictable, results.



LANGUAGES OF THE UNDERDARK

The *Unearthed Arcana* tome lists the languages of undercommon and sign language that are commonly known and employed by the denizens of the Underdark. In addition, such subterranean races have evolved a language based on patterns of tapping. This language can be expressed by clicking stones together, beating on a drum, or creating any other pattern of sharp sounds. Because underground passages create amplified reverberations, this language enables communication over very long distances when drums are used.

The language is much slower to use than either sign or spoken languages, however. Communication takes approximately 10 times as long as with any spoken language. Player characters who are from the underground know this language.

MAPPING TECHNIQUES

The most common style of mapping for characters exploring an underground setting is the detailed graphing of each 10-foot block of corridor explored or room entered. This style, while usually providing a reasonable copy of the map the DM is using, has several weaknesses.

For one thing, this type of map requires a great deal of time—both game and real time—to make. Player characters must carefully pace out dimensions, and the mapper must take the time and effort to record them accurately on the graph paper. A party otherwise able to travel in complete darkness must maintain a light source for their mapper, making it much easier for the denizens of the dungeon to spot them.

Another problem with this type of map is that players tend to

agonize over minor errors. If a room overlaps into an area where the map shows a corridor runs, the players worry about *teleport* traps and other reality shifts, when the most likely explanation is that the map is off by 10 or 20 feet.

Of course, such maps are valuable if careful attention to detail and dimensions are necessary for some reason. In most cases, however, the main purpose of the map is to show the characters the way out of the dungeon after the adventure, so such an elaborate illustration is clearly overkill.

If players are not especially concerned with the exact dimensions of an area they are exploring, a line-drawing map can work very well. In this case, the mapper simply draws a line to indicate the path of a corridor or tunnel through which the party is moving. Doors are indicated with the standard symbol, and crossing corridors or branching tunnels can be displayed with additional lines. The exact distance moved becomes a matter of educated guesswork.

Such a map serves admirably to show the characters the path when they wish to retrace their steps and leave the dungeon. It also effectively displays the areas that have been explored, as opposed to those that have not. Intersections and doors can be easily spotted. Best of all, the map can be drawn without slowing the party down. Although a light source is still required, the light can be shone temporarily while the mapper quickly sketches in the last 100 feet of corridor, and then extinguished while the party advances.

A line drawing map provides insufficient information if the party is traveling through an extremely complicated or confusing area such as a maze or a convoluted network of caverns. Other than these cases, however, players may find the line-drawing map to be every bit as effective—and a lot more convenient—than the typical graph paper masterpiece that most exploration missions generate.



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THE UNDERGROUND ENVIRONMENT

AD&D® game worlds offer a wide variety of underground passageways of both natural and constructed origin. Many of these areas are inhabited by creatures that resent intrusions into their homes. This creates a vast underground ecosystem that is far more extensive than that of the real world.

While the existence of such an ecosystem in a game does not require any explanation beyond the fact that it makes for a fun campaign world, several logical reasons justify the vast and well-populated regions of the underearth.

Defense: In a world where flying creatures are not uncommon and potent magical spells can magnify the effects of a battery of heavy cannon, underground fortifications make sense. In some ways, a dungeon is a more secure position than a castle. Consider the weakness of a historical castle to aerial attacks or *earthquake* spells, for example. A dungeon or underground fortification is virtually impervious to aerial attacks. Of course, spells such as *earthquake* can cause damage to underground areas as well as to buildings on the surface, but identifying the target for the spell is difficult when the dungeon lies well beneath the ground.

A dungeon can also be held by a much smaller group of defenders than even a very well-designed surface fortress, since access to a dungeon is much more limited. Although the attacks of burrowing creatures such as umber hulks, landsharks, and xorn still present a menace, such creatures are rarely marshalled into an army. In any event, if a force of such burrowers were collected, it would present as much of a threat to a castle as to a dungeon.

The efforts of miners also threaten dungeons and castles. However, while a castle is likely to have only a few dozen feet of stone to block excavations, a dungeon can be built at any depth. The farther it is from the surface, the more effort is required to excavate an access for an attacking army. Unlike castle-defenders, dungeon-dwellers do not have to maintain a garrison of troops to hold the wall, so they are much more likely to have a reserve of troops available to combat a sudden break-in.

This defensibility probably accounts for the survival of the races of the drow and duergar. After suffering nearly total defeat at the hands of their enemies upon the surface, the pitiful survivors of these races slunk into the Underdark. There they were able to withstand the final assaults against them, and managed to survive and finally prosper. Although these creatures are now so fearful of sunlight that they pose little threat to surface dwellers, they are almost completely unassailable in their underground lairs. Thus, an uneasy balance is maintained.

Mining: The proliferation of races such as dwarves and gnomes, whose economies rely almost entirely upon their skill as miners, accounts for a great deal of underground excavation. Indeed, many areas originally excavated as mines have been converted to underground fortresses, prisons, or monster lairs. In addition to these races, a number of monsters, including purple worms, umber hulks, and ankhhegs, burrow throughout the earth, creating passageways that can be used by smaller creatures.

The combination of this great amount of mining activity with the burrowing of subterranean monsters has created a network of connecting passages that link nearly all of the major subterra-

nean cavern networks. Thousands of huge natural limestone caverns—many of them over 100 miles long—are now connected by these tunnels.

Gravity: Underground passages in the fantasy world are vast, with many points of access and egress on the surface. Often these points are simply holes sinking into the labyrinthine passages below. Throughout the centuries, many creatures fell into these holes and were unable to get out again. If food and the other essentials of life were available, some of them managed to prosper underground. Gradually, the ways of the sunlit world were forgotten, and the creatures' descendants adapted themselves more completely to the ways of the dark world.

Features of the Underground Game

A role-playing game set in the narrow spaces of the Underdark occurs in an entirely different type of environment from that of a wilderness or city. In addition, the underground game also contains elements of story design, player character decision-making, and game limitations that are far different from those in a surface setting.

Control: In an underground game, particularly with lower level player characters, the DM exerts a great deal of control over the options and challenges facing the players. If the adventure begins in a subterranean room with two corridors leading from it, the characters have only three real options: stay put, or explore one of the two corridors. Thus, the DM needs only to prepare for a few courses of PC action.

If you have designed an essential encounter, you can easily create a situation that leaves the PCs no option but to tackle this encounter. Even with several paths available, you can place key encounters in centrally located rooms that PCs are almost certain to visit regardless of the routes they choose.

You can easily determine the tactics of monsters and NPCs, planning these encounters well in advance because you know that the party can only approach from a limited number of directions. You can rig alarms and set up ambushes with confidence. Of course, intelligent and creative play can always undo many a DM-rigged surprise!

Players may also have an easier time with the underground game, for many of the same reasons. The very narrowness of available options makes the decision-making process easier—a fact that is appreciated by beginning players, in particular. Combat tactics can be simplified by the confining terrain of the typical underground setting. PCs who find themselves outnumbered can hold a better defensive position in a doorway or a 10-foot-wide-corridor than they could in a wilderness clearing.

Danger: Imaginary danger is a key ingredient of all adventure role-playing games, and the dangers associated with the underground are some of the most fascinating and enjoyable to play. The darkness of the underworld combines with the tight passageways and distance from possible succor to create an atmosphere of intensity and excitement that is virtually unheard-of in a wooded or city setting.

The dangers of the underground touch fears common to us all. Caves and old mines are traditionally regarded as dangerous places where only experts dare tread. The game allows players to role play exploration of these forbidden reaches with nothing at

NATURE OF THE UNDERGROUND

risk save an imaginary character.

The depths of the earth have often been associated with real-life dangers such as volcanoes and earthquakes. In addition, there is a vast wealth of mythological material about the foul sources of evil lurking below the surface of the world. When game players enter these regions, they have an opportunity to role play confrontations with lurking sources of evil in a foreign and fantastic environment.

Alienness: The players' unfamiliarity with the underground environment can add to the sense of wonder created by adventuring there. The combination of dark, mysterious locations and bizarre, unknown creatures give the AD&D® game much of its appeal. Nowhere are these features more apparent than in the underground.

The information included here enable the DM to describe underground regions in enough detail to satisfy the players' curiosity. Although the underground should remain unique and mysterious to the players, the DM needs a great deal of information in order to effectively run the environment as a believable and interesting locale.

Frontiers: The term frontier usually denotes a region where the controlling influence of civilization ceases and the realms of wilderness begin. It can also describe a boundary where the influence of one government, society, or culture ends and that of another begins. Both of these meanings apply to various regions of the underworld.

The desire to conquer frontiers is almost universal. In a world where the reaches below the earth's surface present opportunities for exploration and conquest, frontiers are naturally extended in that direction. In fact, characters living in the center of a large civilized area often find that the frontier below their feet is a great deal more accessible, and perhaps more challenging, than any of the farthest frontiers of the national boundaries.

Expansion of the subterranean frontier includes missions of exploration, scouting, plunder, and conquest. In each case, characters push beyond the known limits of their world into unexplored (or at least, poorly explored) reaches. Knowledge that they carry back to the surface is valuable information to their king or other ruling body. In fact, the desire to expand a frontier is often sufficient motivation for a group of characters to embark upon an expedition.

Back to Basics: As mentioned in the introduction, most gamers begin their careers with some kind of underground exploration, usually involving a dungeon stocked with a few nasty monsters and some worthwhile treasures. Many players continue with this type of game through increasingly advanced levels, while others soon tire of the routine and either move on to a different type of setting, such as city or wilderness adventuring, or give up gaming altogether.

Perhaps the most important point is that underground adventure does not need to be a routine of exploring dungeons, slaying, and looting. The realms of the Underdark are populated with civilizations as old or older than any on the surface. These civilizations are a rich source of challenge—their odd, strongly motivated NPCs can be used to create encounters every bit as sophisticated and challenging as role playing in the court of the High King.

Many players whose interests have moved beyond the area of underground adventures are not bored with the underearth per se, but with the type of adventures that the DM created during their early dungeoneering experiences. In many cases, the DM had little more experience with the game than the players, and nobody knew that there were other aspects to the game besides hacking and slashing one's way through a dungeon.

These players can often be drawn back into the dungeon with a more mature type of adventure, utilizing a strong story line and detailed NPCs to generate interest and motivation among the

players. A DM familiar with the vast reaches of the Underdark can create underground adventures that challenge any player. Of course, many players enjoy the hack-and-slash type of adventure, and there is probably no better setting for this than a dark, dank, dungeon full of mysterious beasts and devious traps. It is important to realize, however, that if the players are ready to move on to a new type of gaming, it is not necessary to leave the dungeon for innovative adventures.

Player characters who have spent their last few levels out of doors or in a city often enjoy the change associated with a return to a dungeon adventures. Variety in all aspects of the game is crucial to maintaining both player and DM interest. This variety can be achieved by utilizing different settings, as well as varying story lines and conflicts.

Nature of the Underground Environment and its Denizens

The following pages describe the individual races and cultures of the underground, and introduce or enlarge existing descriptions of unintelligent creatures that dwell there as well. A few generalizations that apply to all of the races living beyond the sun's reach are presented here.

Balance of Power: Each race of the underearth has unique characteristics. The races of the drow, duergar, svirfneblin, mind flayers, myconids, kuo-toa, etc., have existed together in crowded underground chambers for centuries in spite of their differences. Whenever the DM allows PC intrusion into these realms, it is recommended that they find these cultures in a precarious balance of power. Because this balance is unstable, the arrival of a group of characters from the surface may well be enough to upset the equilibrium.

Like surface dwellers, the races of the underground stake out territorial claims, and generally attempt to hold on to their collections of caverns, tunnels, and underground islands with all of their means. Land is even more precious to underworld folk than it is to surface dwellers, since solid rock often prevents a displaced race from moving freely to another location.

Alignment: Although all of the alignments and philosophies known to intelligent creatures are found among the deep-dwellers, a cursory examination of these races shows a tendency toward evil among the majority of them. The reasons for this are not entirely clear, although several lines of conjecture have been suggested.

It is known, for example, that the races of the drow elves and the kuo-toa originally dwelt upon the surface of the world. These races were driven underground as a direct result of warfare waged, and lost, against the united forces of the current surface dwellers. The actual details of these conflicts have been lost to time, but it seems a reasonable assumption that the fundamental conflict was a clash between good and evil. Evil, losing, was banished to the less appealing locations underground.

Of course, this oversimplifies the situation, since there are evil races and cultures remaining on the surface, as well as bastions of good existing underground. However, the passage of time since the ancient conflicts naturally resulted in gradual changes of the alignments and philosophies of entire populations. Also, evil governments may have worked out alliances with the forces of good, allowing them to coexist as allies during those tumultuous times.

Another theory attempting to explain the proliferation of evil creatures in the deep makes a connection between these cultures and the denizens of the lower planes. While it is certain that the evil creatures of the Underdark worship the potent forces of evil ruling the lower planes, no concrete evidence indicates that the depth of the environment causes the connection. It is quite

possible that the creatures of the Underdark worship these evil deities because of a previously existing evil alignment.

The latter explanation might have the most merit when applied to the oldest of the underground races—those with no known period of surface-dwelling. Mind flayers and derro fall into this category, and it seems reasonable to assume that these creatures adopted their thoroughly evil alignments long ago through the dire influence of some dark power.

Philosophy: Every underground culture has developed distinct philosophies. Each culture has several things in common with other races living under the surface, however.

A common feature of these peoples is an absence of, and little appreciation for, a sense of humor. Perhaps because of the sobering danger presented by the environment itself—the tons of rock poised overhead, the chance of asphyxiation or flood—these beings tend to see life as very serious business. Their literature and art almost universally portrays death as an omnipresent force. Laughter is almost unheard of among the cultures of the deep reaches.

Many of these races are chaotic in nature, but this alignment is reflected mainly in large-group organization and coordination. The individuals of each race, whether lawful or chaotic, tend to be very disciplined in their personal habits and social lives. No doubt the scarcity of many resources taken for granted on the surface—most notably air—has forced these creatures to adopt a more careful approach to life.

When art is created in the Underdark, it usually has a function beyond artistic merit. Sculpture is usually worked into support columns or sturdy arches, serving to decorate those necessary pieces of underground architecture. Solemn vows or formal introductions may be presented through songs, thus using the medium of music to help accomplish something perceived as useful. Encyclopedias are considered one of the highest forms of literature.

Waste, whether of food, material, or energy, is deplored and often punished severely. Again, the constraints of the environment can easily explain this value. Air is a valuable resource, and the control of its use, particularly regarding fires, is a common feature of underground law.

Underground races perceive the concept of time differently than surface dwellers. With no changing of day into night or summer into winter, a certain timelessness is reflected in the philosophy of the underground races. Often, the truest indicator of time is the aging of creatures and plants. Even such long-term measures of time have little meaning. A common tale of the deep races speaks of a young man from the surface who was captured and sentenced to immediate execution, but died of old age in his cell before the sentence was carried out.

Creatures raised in the underground are usually very stubborn and resistant to change. The most conservative of the surface governments would seem to fluctuate radically and whimsically by comparison. Perhaps this narrow-mindedness arises also from the environment—with solid rock all around, the options available when a decision is required are often seriously limited.

Distance from the Surface: The subterranean reaches extend from the entrances to caverns, tunnels, mines, and ventilation shafts on the surface to the deepest hollowed-out regions of the Underdark. The exact depth of the lowest areas is unknown, but can be measured in tens of miles. The characteristics of a given area are determined to a great extent by how far below the surface it lies.

Resources acquired from the surface are common only in the top several hundred feet of the Underdark, except in those areas where gravity can be used to move resources deeper without too much difficulty. Wood is probably the most common of the surface-based resources to be transported underground, since it is needed to shore up tunnels or bridges. Occasionally wood can

be transported to great depths with the aid of an underground stream or river of significant depth. The timber is harvested on the surface and then simply thrown into the water, where it flows downstream to the desired location. There it is retrieved and transported to its final destination. Although wood can be carried a mile or more below the surface this way, few waterways have sufficient flow to carry the wood without jamming, so this tactic is only employed in certain areas.

Certain rare species of fungi with solid, woody stems also grow underground. When they can be located, these are often harvested for use as wood.

Food and slaves are additional resources occasionally harvested by the denizens of the Underdark. Slaves and food that is taken on the hoof are generally forced to move under their own power into the depths of the earth. Most creatures living underground do not grow crops or maintain herds, preferring instead to raid food stores collected by the surface dwellers.

Another characteristic at least partially influenced by distance from the surface is the degree of similarity to humans possessed by creatures of the Underdark. This does not apply to individual creatures encountered in dungeons so much as to the cities and cultural centers of more advanced civilizations. While the homelands of the drow, duergar, and svirfneblin are very deep beneath the surface, the domains of the much more alien mind flayers and aboleths are even deeper.

Ecology: The ecology of the underground environment has developed very differently from that of the surface world. The foundation of life on the surface is sunlight, which the underworld completely lacks. A second element surface dwellers take for granted is air supply, which is much more vulnerable underground. Consequently, underground life has adapted to the lack of sunlight, and does not rely on an unlimited supply of air.

The underground food chain begins with many types of fungi, lichens, and molds that grow without benefit of sunlight. Herbivorous creatures such as rothe and cave pigs have adapted to life underground by subsisting on these plants. Intelligent creatures have domesticated these herbivores, thus insuring a supply of fresh meat. As on the surface, unintelligent creatures generally eat what they can catch.

Certain unusual life forms have developed underground and manage to subsist on diets of stone, gems, or minerals. These life forms are quite alien to most creatures, and generally do not occupy a place in the food chain. Creatures that subsist on such fare are believed to be inedible to carnivorous or omnivorous hunters. Another common underground creature is the scavenger, which lives off carrion, garbage, and offal. These creatures occupy a very minor place in the food chain, since few carnivores find them palatable.

Subterranean life forms have evolved an ecology that does not depend on sunlight. Creatures living closer to the surface, however, often benefit from the comparatively plentiful surface food by collecting plants and animals in nocturnal raids to supplement their supplies. Most creatures that live close enough to emerge from their lairs and return to them in a single night prefer this means of subsistence.

Oxygen is a matter of primary concern, for it must be circulated even to the deepest reaches of the Underdark, or the inhabitants of the deep will suffer. Common rumors speak of huge shafts that plummet many miles straight down in arctic regions until they reach an area inhabited by an underground culture. Cold air naturally tends to sink into these shafts. Underground races use geothermal heat to warm the air and send it rising through different areas of their domain. Eventually it emerges through dungeon and cavern entrances. This is a natural process; no forced air movement is necessary. However, localized pockets of stagnant air may occur in this system unless steps are taken to improve circulation.

A BRIEF HISTORY OF UNDERGROUND CULTURES



A Brief History of Underground Cultures

Creatures have dwelt in the realms below for nearly as long as they have walked the regions of sunlight. Although the exact details of underground life are a matter of individual campaign design, a rough overview of the major underground populations is given here.

Certain intelligent creatures of the underearth have no memory, nor any recorded history, of existence outside of their sunless domains. It seems logical to assume that these races have lived underground for as long as they have existed in their present forms.

Five distinct cultures have been identified as dating back to ancient times in the underground. Two of these—the jermalaine and the myconids—have spread through virtually all of the underground realms, living in groups that vary from small and isolated communities to vast cities. The jermalaine were responsible for creating most of the small, narrow tunnels that originally connected many widely separated caverns. Although the tunnels excavated by jermalaine were too small to allow passage to most other creatures, they served as initial routes which were later expanded and organized by other underground dwellers.

The race of fungus-men, or myconids, has branches in most of the deeper areas of the underground. Basically peaceful, the early myconids were nonetheless capable of defending themselves against the depredations of the jermalaine, and the two races learned to coexist with little friction. Since their food sources differ, the two races were not forced to fight for the same ecological niche.

Three other races seem to have existed forever under the ground, but their numbers are much more localized and concentrated. The aboleth, evil creatures of extremely high Intelligence

and advanced culture, live in the deepest regions of the underearth. Although capable of functioning in an airy environment, aboleth much prefer the dark reaches of subterranean waterways for their domains. The aboleth population is concentrated in sprawling cities located on the floor of the Darksea—the vast underground ocean that is the final resting place of underground water.

Because most of the other intelligent races inhabiting the Underdark are incapable of living underwater, the aboleth have developed their cities and culture with little interference from other races. Aboleth are ineffective outside of water, however; they are unable to extend their influence throughout the rest of the dark domains.

The cloaklers are another culture that has dwelt underground since time immemorial. So alien that few other creatures can communicate with or understand them, the cloaklers live in small pockets of caverns and tunnels. They often seem to move into areas that have been excavated or constructed by other creatures, driving the original inhabitants away with deadly persistence.

Mind flayers (illithids) are the fifth of the original known underground cultures. It is thought that the mind flayers at one time controlled vast reaches of the underground domains, and were feared throughout the lands of darkness. Their extremely high Intelligence and fearsome combat ability allowed the illithids to move wherever they pleased and take whatever they wanted, for none of the other original underground races could stand up to them. Only the very low reproductive rate of the mind flayers prevented them from gaining control over the entire Underdark world.

The illithids have been the victims of numerous race wars initiated by other underground dwellers who fear their great powers. These wars have driven the mind flayers into deep and hidden

realms, where they are virtually unassailable. Although warfare was not unheard of among the cultures, these five races lived for millenia in relative balance in the deep reaches under the earth. The jermalaine and myconid dwellings were widespread, while the aboleth, cloaker, and mindflayer cultures were much more localized.

Then came the great Alignment Wars. These were actually all a part of a single grand conflict that spanned centuries, with occasional truces that lasted a few decades. The Alignment Wars were characterized by great interracial cooperation and intraracial combat. The sides were determined not by race, but by alignment. Thus, elves, dwarves, and men of good alignment united to fight elves, dwarves, and men of evil alignment. The wars extended to the seas, where the flourishing race of kuo-toa chose to align with the forces of evil and fight against the marine creatures of good.

All of these evil creatures bore an intense dislike for the sun, and thus their expansion halted at the mouths of their tunnels and caves. Rarely would an individual from one of these races venture onto the surface, even in the dark of a moonless night. Rarely, also, would any surface-dweller dare the inky blackness of the world below.

Over the centuries, the forces of good slowly drove back their evil foes. Hatred and slaughter prevailed as creatures of evil were slain solely on the basis of their alignment. Great battles were fought, and eventually the remnants of the forces of evil had to acknowledge complete defeat. Bitterly, these survivors sought shelter underground and prepared for a final battle. The drow elves and gray dwarves (or duergar) moved underground in great numbers. The skills they had developed through centuries of warfare allowed them to overcome the prior tenants of the underground.

Likewise, the kuo-toa moved under the surfaces of the seas and into subterranean waterways to escape the genocide of the Alignment Wars. Tired of the unceasing conflict, the victors abandoned their pursuit of the vanquished. Soon the grand alliance faded, and once again new sources of evil appeared on the surface. Today, little evidence remains that the forces of good once held sway over the entire surface world.

Below, warfare again raged, but the newly arriving races were able to carve out niches for themselves in the Underdark. The domains of the mind flayers and cloakers were severely reduced as drow and duergar forces seized caverns and tunnels. The kuo-toa branched out and claimed many small, dispersed areas for themselves. Jermalaine and myconids continued to prosper, although they were crowded somewhat by the immigrants. Only the aboleths, serenely evil and complacent in their deep retreats, were left undisturbed by this transition.

As tunnels and caverns were expanded through the efforts of these cultures, many cubic miles of rock were moved. This excavation, coupled with the efforts of powerful spell-casters, opened gateways from the underworld to several other planes. The connection to the Plane of Earth was (and continues to be) the strongest one, and many denizens of the underworld can call upon creatures from that plane at will. Additionally, connections to the lower planes and their insidious evil developed. Where volcanic rock bubbled or underground waterways flowed, doors were opened to the Planes of Fire and Water, respectively.

Although creatures from these planes only represent a small minority of the population of the underworld, the interplanar doorways are not uncommon. Often, adventurers can discern the proximity of a gate to another plane by an unusually high population of that plane's denizens.

Two other cultures intruded upon the realms of the Underdark during the following centuries. A race of gnomes was so motivated by their lust for gems that they adapted completely to life underground. These deep gnomes, or svirfneblin, are one of the

few underground cultures with tendencies toward good alignment. And finally, the pech arrived, apparently emigrating to the deep reaches from another plane—perhaps the Plane of Earth. Like the gnomes, they were drawn by a desire for mineral wealth, and soon developed an unsurpassed skill at working stone. In many cases, these skilled miners were able to excavate their living quarters from the bedrock itself.

The most recent arrival among the ranks of the underground cultures are the derro. These small, dwarf-like wretches seem to have grown from interbreeding between duergar and other unidentified but vaguely human races.

As is only natural in an area with little space, food, and air, savage warfare commonly erupts between the races crowding the realms beneath the ground. These wars have been waged since the drow and duergar first began their retreat beneath the surface, and they continue with the same savagery today. As a direct result of these wars, areas that were once overpopulated are now desolate wilderness, and the underground populations have been whittled away to small, isolated communities.

Today small, civilized pockets of the drow, duergar, myconids, derro, pech, cloakers, mind flayers, and jermalaine are spread throughout the vast reaches of the underworld. Between these pockets, large stretches of uninhabited or monster-inhabited tunnels and caverns create a complicated maze. Below, in the still waters of the Darksea, the aboleth retain their age-old control.

UNDERGROUND GEOGRAPHY: DOMAINS IN THREE DIMENSIONS

Although most of the underearth is filled with solid rock, dirt, or lava, the total area of all the caverns, dungeons, and tunnels equal the ground area of a large nation. These accessible areas are the underground world that awaits the players. It is important that the layout and geography of this world are well conceived and thoroughly understood by the DM.

There is reason to believe that the regions of habitable underground terrain extend underneath much of the campaign world. It would certainly be impractical to try to map out an entire world's worth of caverns and dungeons, however! The DM should handle the creation of an entire underground world on a campaign-by-campaign basis.

This section details a typical area of underground geography that a DM might find suitable to place underneath his above-ground campaign world. The area described is about 1,000 miles in diameter and several dozen miles in depth. The basic patterns of domains and their interrelationships can easily be adapted to fit a DM's needs.

This area includes individual holdings of all of the common underground cultures, as well as all of the common underground terrain types.

The factors governing the types of underground areas in a region are not as complex as they are on the surface, and thus the development of such regions is easier for the DM to plan and control. Several elements do come into play, however, and they are discussed individually:

Surface Terrain

The land or water above an underground region influences the geography found below. A network of tunnels or caverns located beneath a body of water is nearly always water-filled. If not, a rationale must be developed to explain the presence of air. Powerful magic can hold the water at bay, but such enchantments must be permanent. Air pockets may be trapped in dead-end cor-

THE NATURE OF THE UNDERDARK

ridors, but such air cannot circulate and hence is stale and of limited use for air-breathing creatures.

Even underground areas located below dry land may be filled with water. If the region receives a lot of rainfall or is extremely flat, water usually soaks into the ground rather than flowing away. All areas contain a water table—a level below which all openings are filled with water. Unless underground waterways provide steady drainage, the water table can make entire stretches of caverns and tunnels uninhabitable.

When an underground domain occurs beneath mountains, it may contain a series of dungeons or caverns that are actually higher in altitude than many surrounding lands. Explorers in such may move deeper and deeper into the earth, possibly riding along the current of a river, and abruptly return to the surface at the base of the mountain range.

Mountains and other areas of solid granite are much less likely to be penetrated by caves than are the vast expanses of limestone bedrock that lie beneath much of the plains and forests of the surface. These areas, which were once seabeds, are the most susceptible to natural cave formations. Of course, underground areas that have been excavated can be discovered anywhere, regardless of rock type.

Temperature

The nature of a particular underground region is often determined by the prevalence of nearby heat sources. When geothermal energy is present, caverns tend to be more crowded with subterranean plants than cooler regions are.

Creatures of intelligent underground races, particularly the drow and the duergar, seek out these warmer caverns for their lairs and cities. Thus the chance of encountering intelligent denizens is significantly higher around sources of underground heat.

Warm temperatures also serve to circulate air, since heated air tends to rise toward the surface and cool, fresh air is drawn in to replace it. Although this natural convection is slow and somewhat inefficient, intelligent races often excavate ventilation tunnels to exploit it. Areas thus modified tend to have a good supply of fresh air.

Humidity

The amount of moisture in a cavern affects the stone of the walls, as well as the habitability of the area. If a cave dries up, its stalactites, stalagmites, and all exposed surfaces grow extremely brittle and eventually turn to dust.

The combination of high humidity and warm temperatures creates a steamy environment highly prized by certain scavengers. The rock in such areas tends to be very slippery, and is often coated with lichen, mold, or other slimy matter. Underground areas of extremely low humidity, regardless of temperature, tend to be very dusty.

Water flowing through an area constantly erodes its bed, so the area itself is always changing. Such erosion often leads to cave-ins and rock slides, hazards not common in drier regions.

Size

The expanse of an area hollowed out from rock determines a great many of its characteristics. Most obvious are the physical limitations placed upon the sizes of creatures that could be encountered there. A group of halfling explorers does not worry about encountering ogres in a network of three-foot-wide tunnels!

The relationship between an area's size and its potential for cave-ins is also significant. Some of the largest underground caverns have ceilings that soar hundreds of feet above the floor and stretch as much as a mile from side to side. Unless a cavern

of this size is magically or physically supported, intelligent creatures tend to avoid it when seeking living quarters. Even a minor earthquake, tremor, or landslide could create a catastrophe of colossal proportions by caving in a section of the ceiling.

The races of the drow, duergar, and derro do prefer large underground areas for their communities, but are careful to prevent such disasters. Support columns are the most common precaution, but various *permanenced* magical spells also serve to prevent cave-ins.

Creatures such as the jermalaine and pech choose small, constricted tunnel networks as living quarters. The small size of these creatures is their greatest defense in such locations. Other underground creatures are adaptable to many different types of lairs, and can be encountered in both small and large areas.

Origin

An important facet of underground geography is the origin of the spaces between rocks. Caverns, lava caves, and other naturally eroded or developed places vary widely in size and shape. Such locations are earmarked by irregular walls, ceilings, and floors. In fact, these surfaces may be so rough, steep, or constricted that travel on foot is virtually impossible.

Areas that have been constructed by intelligent races, on the other hand, show evidence of the builders' craftsmanship. The lairs of the duergar and svirfneblin are the most smoothly carved regions of the underworld. Often, a large central cavern is developed into a virtual domed city, with individual residences excavated into the walls of the cavern. These skilled miners are capable of digging a perfectly straight tunnel many miles long, or of creating ornate stonework decorations.

Other races, such as the drow and kuo-toa, have a limited ability to excavate stone, but do so if necessary. These creatures much prefer to discover a fine duergar lair, overcome the gray dwarves' defenses, and claim it for their own. Races such as the mind flayers and myconids show no interest or ability in excavation, and live in natural caverns or abandoned dungeons.

Access and Egress

The difficulty with which creatures can journey from an underground region to the surface tells a great deal about the dark region's characteristics. Fresh air is much more plentiful in those areas with some direct connection to the surface. Of course, air can flow through shafts and tunnels that do not allow creatures easy access (the miles-deep shafts of the arctic ventilation tunnels present a good example of this).

In general, areas that allow easy access to the surface world are populated by creatures that occasionally leave the underworld to raid or trade with surface residents. Orcs, goblins, and kobolds are good examples of these races. Most of the cultures of the Underdark, however, prefer to dwell so deeply that they do not have to worry about the outside world. As these creatures do not like to venture onto the surface, likewise they do not welcome intrusion from creatures living above.

THEORIES ON THE NATURE OF THE UNDERDARK

Because only a few courageous explorers have ventured into the realms of the underworld, and even fewer have returned to tell their tale, there are many unanswered questions about the exact nature of the world beneath the earth.

Each of the following theories has been proposed by adventurers or sages who have studied the history and nature of the dark regions, and each theory has its own merits. They are presented

for the DM's use, and can provide insight into world design. As to which (if any) of them are correct, the DM must decide which is most consistent with his overall plans for his campaign world.

These theories may not be common knowledge among the citizens of your campaign world, although you may allow this if you wish. It is more likely that each theory is regarded much as an advanced scientific hypothesis is today—that is, the information is not regarded as secret by the sages, but it is not of broad enough interest to become a popular topic of conversation among the populace. If player characters wish to find out about some of these theories, they should seek out knowledgeable NPCs, and perform whatever role-playing tasks are necessary to gain the information.

The Hollow Earth Theory

This hypothesis holds that the earth's surface is a mere crust over a vast open space, and that a wide variety of life forms pursue their existence almost completely isolated from the surface world. No adventurer is known to have visited this inner earth, and all reports of it originate from the deepest of the underground cultures.

Descriptions of the exact nature of the hollow earth vary. Some stories maintain that a vast atmosphere exists beneath the crust of the outer earth, and that a small version of our own world rests in the middle of this atmosphere. Obviously, only creatures that can fly or levitate for long periods of time could possibly travel from one world to the other. The inner earth is presumably cloaked in utter darkness, although rumors tell of savage bouts of volcanic activity that often light up great tracts of it.

Other versions of this theory hold that columns of fiery lava fall from the outer earth and create a rain of fire onto the inner earth's surface. The temperature there is reportedly very high, and the world hosts only those creatures that have developed a considerable liking for, or resistance to, fire.

Another hollow earth theory holds that the entire center of the earth is hollow, and that the outer earth forms a thin shell around this emptiness. Creatures reportedly live on the inside of the shell and look up to the center of the earth. This theory is considered one of the more far-fetched explanations of life underground. A variation of this explanation embraces the same overall structure, with an air-filled center, but denies that creatures can walk upside down on the inner surface of the shell. Instead, the center of the earth is home only to flying and levitating creatures, and is in fact a prime point of connection between the Plane of Air and our plane.

The Swiss Cheese Theory

According to this theory, the world is fundamentally solid with no massive hollow space at its core, but enough caves, caverns, and artificial passageways exist to allow an individual to travel anywhere under the world.

The argument most commonly used in support of this theory is the widespread occurrence of many of the common underground races, such as goblins, hobgoblins, and orcs. These creatures can be encountered in most lands on the surface. Since none of them like to live (or presumably travel) overland, it is argued that their wanderings must have occurred through a vast network of tunnels underneath the surface.

The exact nature and origin of these tunnels is left to speculation by the proponents of this theory. It is known that many characteristics of goblins inhabiting the dungeons of one land are mirrored by goblins inhabiting the dungeons of a land thousands of miles away. This alone does not prove the theory, since it can be argued that the goblins might have migrated overland, or that their common traits were delivered to both races by the same

source—an evil deity, for example.

Many adventurers have embarked upon missions to prove this theory true. Most of them have failed to return, but those who have emerged again report only failure. All of the expeditions that survived began by following a promising route, only to find that it dead-ended, circled back upon itself, or led to the surface near the starting point.

If there are indeed connections between most of the realms of the Underdark, this fact has not been exploited by its denizens. It could be that the passages are too small to be used by great numbers of individuals, that the distances between the habitable regions are too great, or simply that strife among the denizens has prevented large-scale movements from one area to another.

The Isolated Pockets Theory

This explanation is the least imaginative of the theories, but fits most closely with present observations of the underground regions. Although areas of vast realms and highly developed cultures have been discovered beneath the surface of many lands, the Isolated Pockets theory claims that each of these underground regions is an area unto itself, with no subterranean connections to any other underground regions.

The small bits of contrary evidence, such as cultural similarities between widely separated underground populations, are explained as either the results of migration over the surface, or as the influence of some deity not bounded by the constraints of geography. The overland migration of creatures that hate sunlight could have been forced. For example, a migrating group of humans may have taken goblins as slaves and forced them to live above ground for many generations. Perhaps some of these goblins escaped and sought refuge in underground dungeons and caverns. These goblins would have many of the same cultural traditions as their ancestors.

The Partial Connection Theory

This theory is common among the most knowledgeable students of the underworld, but whether for any intrinsic merit or simply because it presents the best compromise is open to speculation.

The theory maintains that there are indeed connections between all or most of the underground regions, but stops short of the Swiss Cheese theory's easy accessibility. The Partial Connection theory holds that the connections between widely separated regions of the underworld are treacherous and often impassable routes.

Fire, in the forms of volcanic activity, lava, steam, etc., is commonly suggested as a block to these passages. Only creatures with powerful resistance to fire could be expected to traverse these barriers. Water is the other commonly mentioned obstacle that makes travel through connecting passages difficult or impossible. Regions of the underground that lie beneath the deepest seas and oceans are unlikely to be filled with breathable air, thus closing off many passageways.

The Partial Connection theory allows for limited traverse among the separate regions of the underground, but only by creatures capable of dealing with the fierce obstacles lying in their path. Alternatively, creatures could have made a migratory underground journey through a traversable region in the distant past, and that region could later have been filled with water or split by the fiery activities of volcanic rock.



THE CULTURES OF THE UNDERDARK

VALUES AND OBJECTIVES

The races of the Underdark present a variety of different physical forms, but their differences go much deeper than appearance. This section explores the societal influences, beliefs, and goals of the major intelligent races living underground.

In general, the races of the Underdark rely less on trade and interaction with other races than the races of the surface. Perhaps this is because the underground environment forcibly segregates the creatures living there. Nonetheless, a certain amount of trade occurs among the underground races. Trade with surface cultures also occurs, but less frequently.

Trade is more often governed by proximity than by alignment. An evil race would most likely trade with a nearby neutral race than with a more distant evil race.

Each major race of the Underdark is covered in detail in TSR's monster encyclopedia. The purpose of this section is to expand on the material previously presented, especially as regards the societies and cultures of these races. Readers are referred to the appropriate monster guide for additional information.

Drow

Drow society has developed along strongly matriarchal lines, with females holding all positions of power and responsibility in government, the military, and at home. While the males are effective fighters and can become low-level magic-users or clerics, they are rarely encountered unless under the command of higher-ranking females.

The drow worship the spider god, Lolth, and many aspects of their culture reflect this. Drow of 6th level or higher are often tested by Lolth. Those that fail become driders—half-drow, half-spider creatures. Outcasts from drow communities, driders are often encountered around the fringes of drow realms. Other spider-like creatures, such as scorpions, pedipalp, and solifugid are commonly found among drow communities.

The drow emulate spider characteristics in other ways. Their buildings and cavern networks are often created in a web pattern. Traps among these structures channel creatures toward the center of the web. In times of severe population pressure, the drow practice cannibalism, weeding out the weaker members of the community. The victims are always the aged, since the safety of the young is very important to the drow.

The drow culture is perhaps the most widespread and firmly entrenched of all underground cultures. The drow make treaties with other races when it serves their own interests, but are quick to break these agreements if the terms no longer seem advantageous. This, of course, makes other races reluctant to enter into alliances with them.

The long-term objective of the drow is to rule over all other subterranean races, and to control all access to and from the underworld. The attainment of this goal is obviously unlikely in the near future, but the drow enthusiastically endorse any proposal that moves them closer to this objective without endangering their current dominant position.

For more information on the drow, see the *FIEND FOLIO*® tome.

Kuo-Toa

The kuo-toa have passed their prime as a race, and now struggle simply to retain their current holdings and some degree of cultural integrity. While there are still many kuo-toan communities, their inability to cooperate in the face of threats makes them susceptible to military conquests by other, more disciplined races.

Worship of the Sea Mother is the one unifying element of kuo-toan culture. A few of the oldest and wisest kuo-toan clerics dream of joining their chaotic and feuding factions into one mighty army, and carrying forth a great holy war in the name of the Sea Mother. While this is not likely to come about, the few believers constantly work to carry the plan forward.

The dramatic decline of the kuo-toan race has resulted in a very high incidence of insanity among kuo-toans. As many as 5% of all men-fish suffer from mental imbalance and are prone to go berserk at the slightest provocation. This has led to the development of a "monitor" class of elite kuo-toans that are charged with controlling the members of their race that succumb to insanity.

Kuo-toans rarely trade with other races, as they have no industries and little to offer in trade. They are always interested in acquiring slaves, however, and will work out any means to do so. These means include brute force, treachery, or bartering a rare useful item.

For more information on the kuo-toa, see the *FIEND FOLIO* tome.

Duergar

The duergar, or gray ones, practice their evil in a disciplined and orderly fashion. This has allowed the race to prosper and dominate in areas where other, more numerous, creatures have failed to thrive. Coupled with this inherent discipline, the gray dwarves are also hard workers and tenacious combatants.

In many ways, the duergar culture resembles that of their higher cousins, the mountain and hill dwarves. All of the dwarf races rely heavily on mining for economic prosperity, and all are skilled at working metals and stone. The duergar are particularly adept at designing fiendish traps that imprison unwary prey and often inflict a slow and painful death. The duergar differ somewhat from their cousins in their frequent employment of slave labor, and their complete disregard for the welfare of those slaves.

When arrayed for battle, the duergar make a formidable force. They are particularly known for their complete mercilessness on the battlefield, and for their love of torture. Captives that are deemed unsuitable for slavery are usually put to death in the most fiendish, macabre, and time-consuming methods imaginable.

As a race, the duergar seem to have no major ambitions of conquest and domination, but they fight fiercely and savagely both to preserve what they have and to gain control of any portion of the subterranean world that appeals to them. The latter usually occurs when precious metals or gems are found outside the duergar realms. In these cases, the gray dwarves quickly mount a military expedition and attack any creatures dwelling in the cov-

CULTURES OF THE UNDERDARK

eted caverns. The duergar, for practical as well as alignment reasons, prefer to exterminate their foes in these instances rather than simply drive them off. This tactic serves to eliminate threats of reprisal.

Many duergar become skilled craftsmen, particularly in the areas of sculpture and metalworking. The gray ones trade their work with neighboring races and receive slaves and technological devices that are beyond their capabilities.

For more information on the duergar, see *Monster Manual II*.

Mind Flayers

The mind flayers, or illithid, are as alien and evil a race as exists in the Underdark, with the possible exception of the aboleth. In fact, the aboleth are the only other race toward whom the illithid are not actively hostile. Ancient legends suggest that a sinister connection exists between these two evil races.

The mind flayers do not actively pursue the expansion of their realms or the subjugation of other races. Any human, humanoid, or demi-human who is unlucky enough to fall into the tentacles of the illithids soon loses his brain to satisfy their fiendish hunger. His body is left to the plentiful subterranean scavengers.

The mind flayers, as a race, do have a goal, and their leaders devote much effort toward finding a way to achieve it. Because they loathe the light of day and hate being limited to the confining chambers of the Underdark, the mind flayers quest to destroy that which bars them from the surface world: they seek to douse the fires of the sun itself!

Exactly how this is to be accomplished has not been determined. Since even limited exposure to sunlight is very debilitating to mind flayers, it is difficult for them to study the object of their loathing. Nonetheless, their genius-level Intelligence and significant psionic powers give them hope of someday arriving at a way to achieve their goal.

The mind flayers are a formidable military force. If a battle or encounter goes against them, however, they use their *probability travel* psionic ability to escape. They are far too practical to fight against difficult odds.

Mind flayer society is rigidly organized, with status assigned according to psionic ability. Slaves are employed for most physical tasks and are used as food. These slaves are of all human and humanoid races.

The illithid experiment with the development of life forms. Their communities are usually surrounded by many unidentifiable creatures that often resemble crosses between humans and various loathsome monsters. Though slow, stupid, and horrible to behold, these hybrids are often endowed with savagery, poison, or other special features that make them formidable opponents. They bear no love for their creators.

Mind flayers trade very little with other races, since they need few material possessions. Other races have been known to buy immunity from mind flayer raids by providing a steady supply of slaves. Occasionally the mind flayers and the aboleth enter into temporary truces or pacts of cooperation to achieve some mutual goal—the subjugation of a weak community, for example.

For more information on illithids, see the *Monster Manual*.

Aboleth

From a human point of view, this sinister and mysterious race is doubtless the most alien underground culture. The aboleth's actions are nearly always calculated to advance the position of their race with no regard for the welfare of any other. Coldly ruthless, they are not interested in torture because it serves no rational purpose, but quickly kill any creature that does not seem likely to serve as a useful slave.

The aboleth intend to eventually gain complete control over the

realms of the underworld. Since they are most effective in water, the aboleth are first attempting to hold sway over all underground lakes, rivers, and seas. Their growing power is one of the main reasons for the waning of the kuo-toan race.

The aboleth occasionally enter into obscene pacts with the mind flayers, always to the detriment of some other hapless race. There is little doubt, however, that the illithid will also be exterminated when their time comes. For now, the aboleth use them as a convenient tool to further their own aims.

The aboleth are not known to worship any god. There are, however, huge and loathsome examples of the species that command the deep respect of the other aboleth. Each aboleth city has from one to six of these bloated and disgusting creatures. These greater aboleth can be up to four times the size and Hit Dice of a normal aboleth. They are the repositories of the vast alien knowledge collected by the race.

The society of the aboleth is well ordered, with the position of each individual rigidly defined. Numerous slaves populate aboleth cities and are only casually guarded since the cities are usually so remote that escape is impossible.

For more information on the aboleth, see *Monster Manual II*.

Derro

These savage little creatures are found in many places throughout the Underdark, but never in large communities. Often they live near enough to the surface to be able to raid for slaves and food there. Derro society is very chaotic and intraracial violence is commonplace.

Derro perform little work and thus do not trade much with other races. They prefer to steal the possessions of others rather than make anything themselves. Occasionally the derro enter into an uneasy alliance with the duergar or the drow, but these pacts are always short lived and usually end in violence.

Once every 20 or so years, derro savants unite their race and embark upon a vicious war of raid and plunder throughout the underworld. These wars always end in utter defeat for the derro, but their high reproductive rate allows them to recover and prosper again.

For more information on the derro, see *Monster Manual II*.

Cloakers

The members of this mysterious race are referred to as the true children of the earth. Although probably native to the Prime Plane, cloakers and their kin seem to have strong ties to the Elemental Plane of Earth. Cloakers are the most intelligent variety of their type, which includes lurkers, miners, trappers, and mantari. The other creatures often accompany cloakers, seemingly as servants.

Cloakers resist all contact with other races. Attempts to deal with the cloakers always result in violence and bloodshed.

The cloaker culture appears to have little organization. They neither use tools nor build permanent structures. When danger threatens a community, each cloaker seems to sense what it should do further the best interests of the community. Though cloaker territories are easily conquered by organized foes, savage guerrilla warfare often convinces the conquerors to relinquish their gains. Cloakers sacrifice their less-intelligent kin in great numbers defeat an enemy.

For more information on the cloakers, see *Monster Manual II*.

LANDS OF DEEPEARTH

The lands of Deepearth are presented in detail as a setting that you can use for your underground campaign. The known varieties of intelligent life each claim a portion as their own, and a group of player characters can gain many levels and overcome towering obstacles, without exploring Deepearth in its entirety.

If you prefer, regard the lands as an example of the underground ecosystem and its many components. Utilize those aspects you like in your own campaign, and disregard others. Expand this area as much as you wish—as presented, the realms of Deepearth occupy no more area than a moderately small nation. Certainly there is potential for many such underground realms under the lands and seas of the fantasy world.

The realms of Deepearth are mapped on the following pages for your easy reference. Each numbered area on the map is presented in rough detail, including a description of the overall geography of the region, its major inhabitants and resources, and any unique features you might find useful in adventuring. Obviously, each area must be mapped in more detail if you plan to run your campaign there. If you wish to add some three-dimensional detail to your mapping, see page 114 for suggestions. Geomorphic mapping is also described there and can be a great time-saver if your PCs spend a lot of time adventuring in the regions of Deepearth.

If you are employing one of the Hollow Earth theories, note that the region of the hollow earth lies below the areas depicted on the map of Deepearth. You will probably wish to create shafts or tunnels leading down from the lowest level of Deepearth.

Connecting Passages of Deepearth

The map shows a number of connecting links between the major inhabited regions of Deepearth. Some of these are shown as waterways, while others are presented as tunnels. All connecting passages are large enough to be passable to human-sized characters. Other factors, such as vertical obstacles or water currents are handled on an individual basis in the area description, or can be generated randomly by the DM.

Water Passages

The waterways shown on the map are rivers flowing through the vast dark reaches of Deepearth. With a quick look at the map, it should be easy to determine which direction each river is flowing. With the exception of waterfalls, the rivers proceed at a rapid pace or slower, sometimes becoming almost stagnant in their sluggishness.

All vertical drops, or waterfalls, are indicated on the map. Use the map scale to determine how far a waterfall drops. All other sections of underground waterways are navigable by boat, assuming a skilled pilot and a little luck.

To determine the width of a section of waterway, roll 1d6 and multiply the result by 10, for a possible spread of 10-60 feet. The width remains constant, with minor fluctuations, for one mile, after which you must roll another d6. On a 2-5, the river remains at approximately the same width. If the result is 1, the river decreases in width by 10 feet (or 5 feet, if it is already only 10 feet wide). If the result is a 6, the river expands its width by 10 feet,

even if this makes it wider than 60 feet.

The water in underground rivers is usually numbingly cold. To check the temperature of a given area, roll 1d6. On a 1-5, the river is very cold. On a 6, some heat is reaching the water. To determine how warm the water is, roll another d6. On a 1, the water is cool, but slightly warmer than normal. On a 6, it is boiling hot. A result ranging from 2-5 means a degree of warmth proportional to the roll. Only water that is boiling hot is unsafe for unprotected characters to swim or fall into.

Tunnels

The tunnels connecting the larger realms of Deepearth are all of sufficient diameter to allow a human to pass, and often are much wider than this. In most cases, these tunnels are natural caverns, but about 1 out of every 10 miles (10% chance) has been carved by intelligent creatures. In cases where excavation has occurred, the tunnel is a uniform 10-foot diameter and height, with no sudden obstacles such as cliffs or chasms.

There is a base 33% chance per mile that an obstacle lies in the path of the PCs as they explore natural caverns. The obstacle might be a cliff of 10d10 feet height, or a chasm 20d10 feet deep and 4d10 feet wide. Other possible obstacles include the remnants of a cave-in, or a large pool of water, quicksand, oil, or tar. The obstacle never completely closes off the passage, however.

The caverns range from 3-60 feet (3d20) wide. Once a width has been established, it remains constant for 100-2,000 (1d20 × 100) feet. After this distance, it stands a 1/3 chance of changing. If a change is indicated, reroll the 3d20 to determine the new width of the passage.

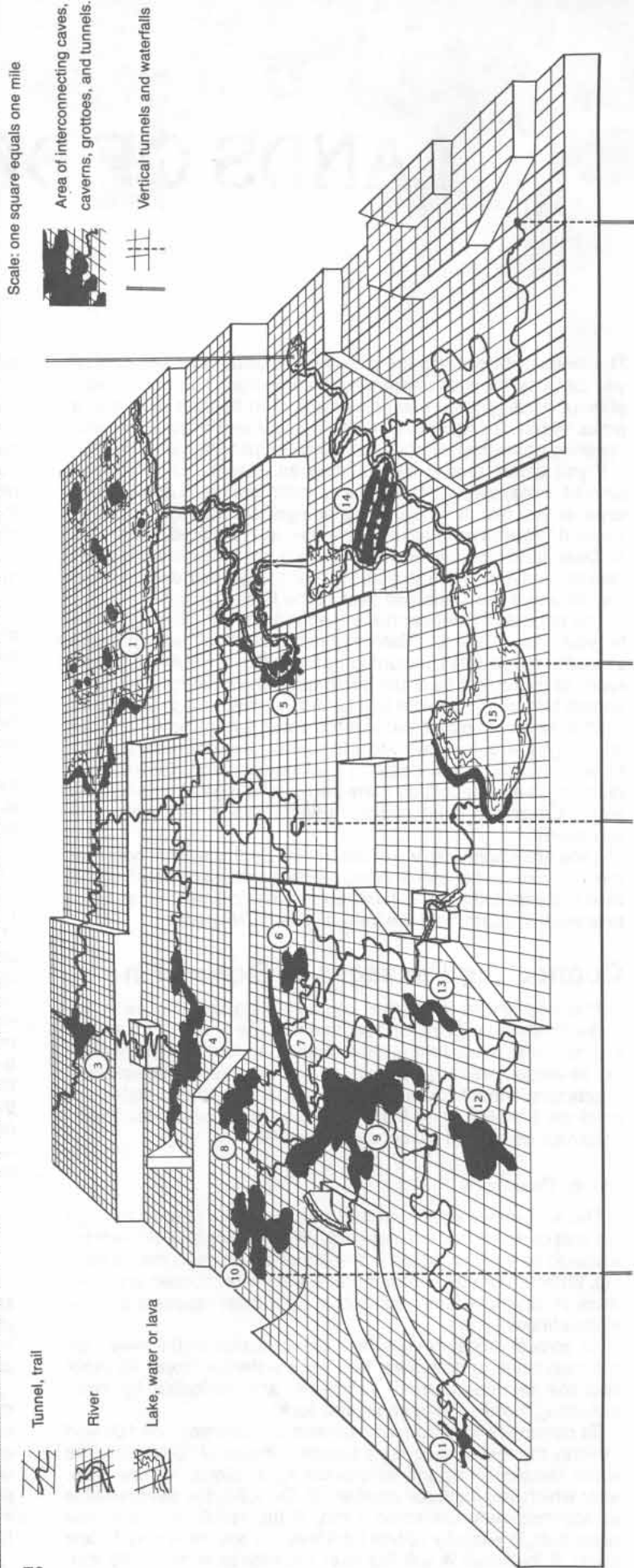
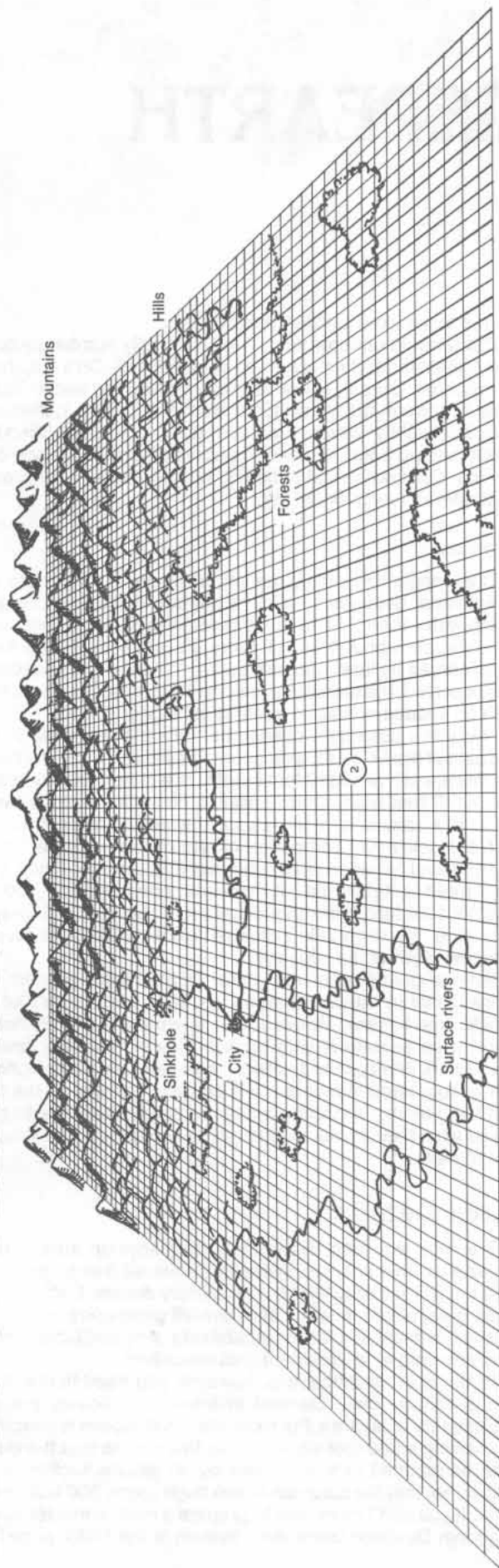
Various unintelligent monsters, including scavengers, occasionally live in these passages, as do a wide variety of fungi, molds, and lichens. However, intelligent creatures do not dwell here. If an encounter with drow or any of the other intelligent Underdark denizens is desired, it can certainly be designed, but the encountered individuals will be passing through the tunnel, not living there. Of course, renegade bands that have been banished from their homelands might try to eke out an existence in the tunnels.

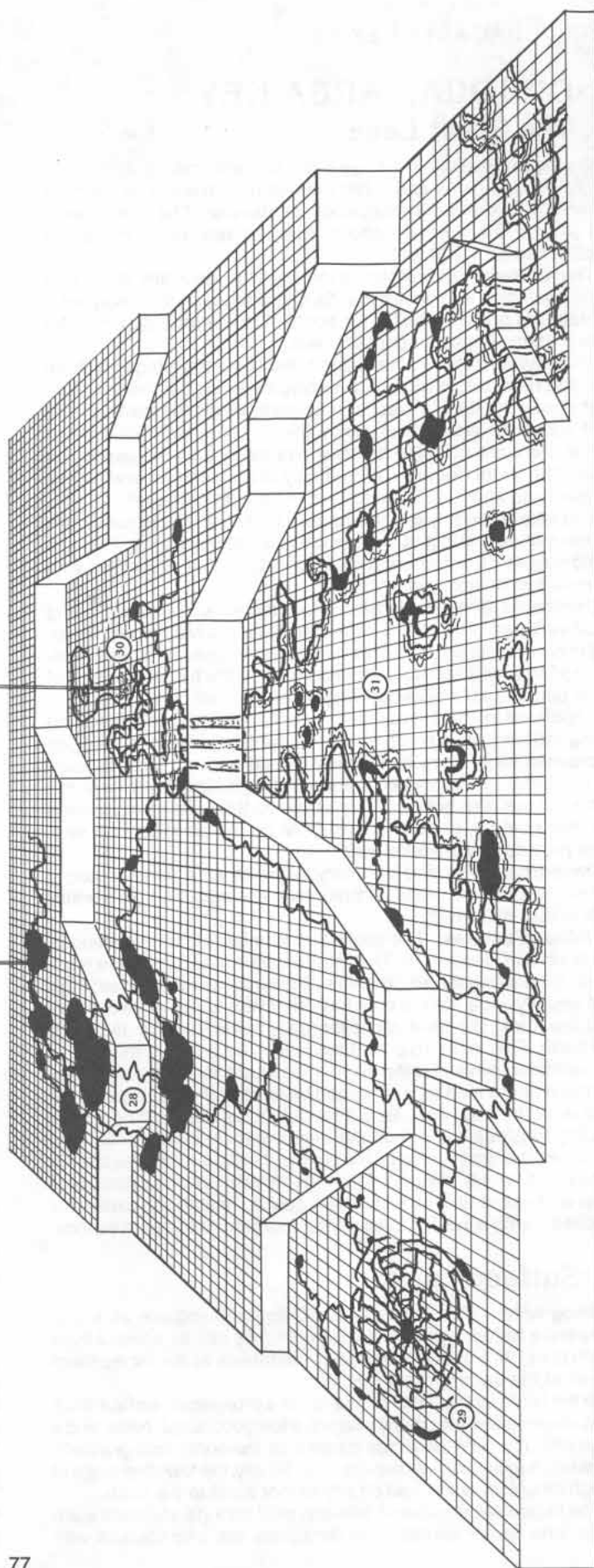
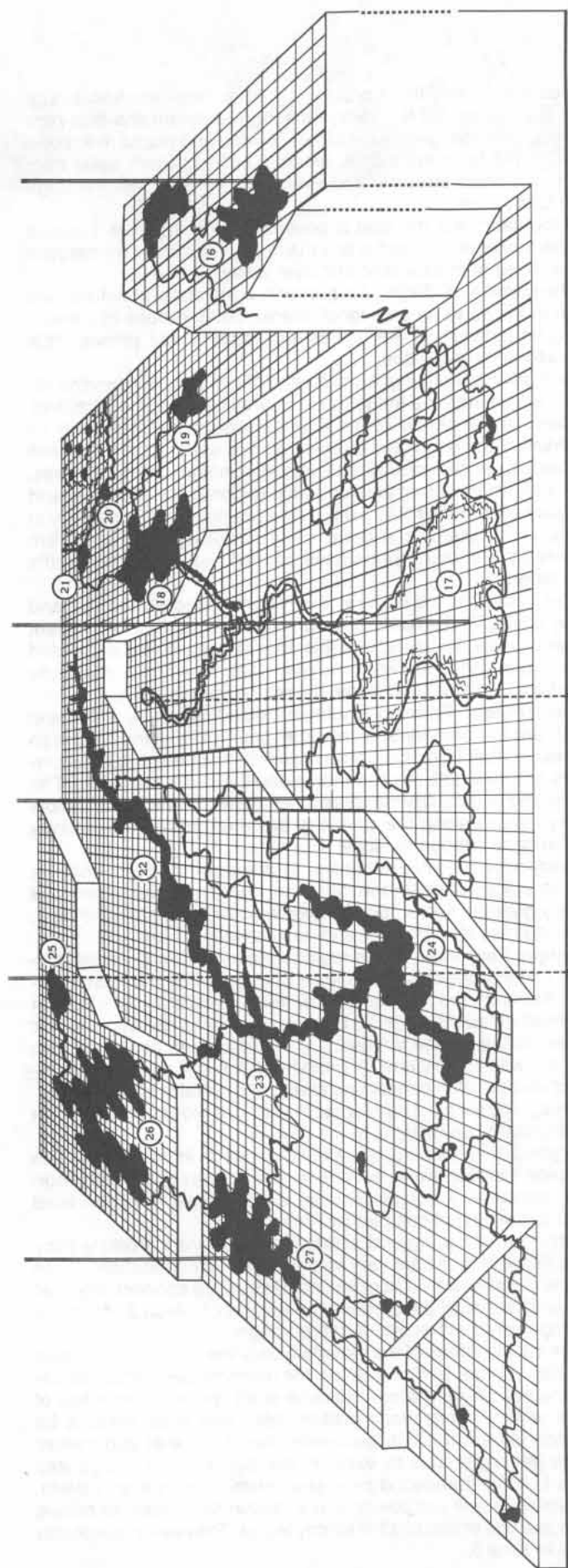
Area Details

The map provided shows much too large an area to be fully detailed in this volume. Instead, an overall framework is given and the DM is free to fill in the necessary details. Each numbered area is described in terms of its overall geography and origin, as well as its most significant inhabitants. Any available resources and any unique features are also described.

In terms of specific areas, however, you need to create some maps of your own. General information indicates the overall parameters of an area. For example, if a dungeon is described as occupying a 300-foot-square area, this means that the dungeon can be mapped in a 30 square by 30 square section of graph paper, not that the dungeon is one huge room, 300 feet long on a side. If you don't have time to prepare a map, consider using the Random Dungeon Generation system in the *DMG*, page 169.

LANDS OF DEEPEARTH





INDIVIDUAL AREA KEY

INDIVIDUAL AREA KEY

1. The Great Lake

Geography: This is a huge body of fresh, cold water, fed by many rapid streams and a few meandering rivers. The northern half of the lake shore is rocky and mountainous. The lake is deepest just off the northern shore, where it reaches a maximum depth of some 1,200 feet.

The eastern and western shores of the lake are lined with sandy beaches and occasional fishing villages. A few good natural harbors provide shelter for boats. The average depth of the lake in these areas is about 400 feet.

The southern shore of the lake is lined by a towering limestone cliff that runs east to west. This escarpment rises as much as 400 feet above the lake in places, and never drops to less than 100 feet above the water level. Since the cliff plunges right into the water, there are no settlements or beaches along this part of the lake. The water depth here is usually at least 50 feet and slopes gradually to about 400 feet toward the center of the lake.

The lake is roughly oval in shape. The entire lake is not shown on the map; it is about 50 miles wide and 120 miles long. The lake bottom rests on a firm bedrock of limestone that is covered with several feet of accumulated silt.

Denizens: The lake is heavily populated with fish, including most varieties of trout and freshwater salmon. Many large freshwater carnivores are also drawn to the lake because of the plentiful food supply. There are common tales in the fishing villages of giant gars capable of swallowing an entire boat.

Reports of intelligent denizens tell of a few lonely sirines living along the north and south shores of the lake, where the rugged shorelines allow them to find remote and isolated lairs. In addition, a band of freshwater marine trolls (scrags) lives near the center of the lake bottom. Only rarely do they disturb fishermen or other boaters, preferring to subsist on the plentiful food supplies provided by the lake itself.

Resources: The lake's primary resource is its plentiful supply of fish. In addition, many communities harness the lake's water flow to turn mill wheels.

Unique Features: The lake has a number of paths leading to the realms of Deepearth. The most obvious is a cave in the limestone cliffs along the south shore. The cave is about 20 feet high and equally wide, and is only half filled with water. A gentle current flows into the cave and eventually leads into the depths of the earth. This is the river that leads to Area 5 on the map.

In addition, several water-filled mine shafts in the mountainous northern shore lead to submerged caverns with openings on the bottom of the lake. See Area 2 for additional details. The tunnel leading to Areas 3 and 4 on the map is largely a natural cavern. However, the small spur of that tunnel leading to the lake is an excavated tunnel. The corridor cuts directly into the bottom of lake, and would fill with water very quickly had not its excavator blocked it with a *wall of force* spell, augmented by *permanence*.

2. Surface Lands

Geography: The lands above Deepearth include all major temperate terrain types. The land generally slopes upward from south to north, with a lofty range of mountains at the far northern extent of the underground realms.

To the south lie the fertile farmlands of a prosperous surface kingdom, interspersed with many villages, a few good-sized towns, and a large city. The land becomes rougher to the north, and gradually turns into a rocky, hilly wilderness area. Finally, the towering crags of a high mountain range seal off any further travel to the north.

The region endures harsh winters, mild springs, pleasant summers, and heavy rainfall. The farmlands are interspersed with

woods and forests that occasionally cover large expanses. The hills are barren, but the valleys among the mountains host pine forests and wide, grassy meadows. A wide and placid river flows through the farmland region, where it collects fresh water from many mountain streams, and eventually empties into the large lake to the east.

A fortified city is the seat of government for the area. Located on the banks of the river, it is a major trading center for cargoes transported both over land and over water.

The towns and villages are primarily agricultural in nature, and each is keyed to its own local needs. Small groups of bandits maintain hideouts in the woods and foothills, but present little menace to the populace.

In addition to humans, a small band of centaurs and several villages of halflings live in the forested areas among the farmland. An area in the center of the deepest woods is rumored to be enchanted and populated by elves, pixies, and dryads, but these stories are unconfirmed. Game, including some large carnivores, is plentiful in the forest and mountain regions. Both dwarves and hill giants live in the rocky hills. These two races are constantly at odds. While there is a great deal of raiding and vandalism between them, many years have passed since a pitched battle was fought.

The mountains are home to a very hardy band of dwarves, and many giants. In the far reaches of the range, a series of ancient volcanoes still smolders, and this area is rumored to be prowled by dragons and other fearsome monsters. Few humans venture into the mountains, and fewer still return from them.

Resources: Farming products, including grain, milk, and meat, are the primary sources of income for humans, who also harvest lumber from the forests. Water is plentiful, and both rowboats and sailboats are common along the rivers and lakes. The rivers, and particularly the lakes, host many varieties of fish. Most of the villages along the shores of these waterways rely heavily on fishing to support the local economy.

Every once in awhile, a band of dwarves comes down from the hills to sell minerals in the city. The location of the mines is a closely guarded secret, but the dwarves are known to mine gold, silver, copper, bloodstones, and occasionally rubies.

Unique Features: These regions present many possible avenues into the underworld. At least one sprawling dungeon complex beneath the city connects with a natural cavern that eventually leads to Area 9. This complex links the city's sewer system to the palace dungeon. Many catacomb passages also connect with the sewers. A prominent thieves' guild has excavated several other connecting areas, and certain influential merchants, wizards, and lords have developed their own underground connections to the sewers.

A group of bandits occupy a deep dungeon in the forests. The dungeon has four levels, several treasure caches, and many horrible monsters. A secret passage in the lowest dungeon level leads to the cavern complex in Area 4.

Among the hills, natural limestone caves are extremely common. Some of these are very shallow, with no connections to the realms of Deepearth. About half of these caves connect together, however, and lead the persevering explorer to Area 3. All of the passages in this area are of natural origin.

The mining efforts of the mountain dwarves have created some very deep shafts. In many cases, the dwarves were forced to discontinue excavation when the mine shaft struck water. A few of these watery connections present openings large enough for humans to pass through, assuming they can travel underwater. These passages lead to exits on the bottom of the large lake (Area 1). One abandoned mine shaft terminates in a dry cavern. The dwarves will not speak of the reason they stopped mining there, but use of that shaft is strictly taboo. The cavern eventually leads to Area 3.

3. Upper Caverns

Geography: This is the central area of a vast network of limestone caves. These are living caves, and water is plentiful throughout the area. None of the caves are totally filled with water, although occasional pools are six to eight feet deep. In several locations, dungeons have been excavated from the caves, although none of the excavated areas is larger than 300 feet square.

The area is a virtual maze of twisting, winding caverns. Cliffs, chasms, and constricting passages are very common. The largest chamber in the whole area is not more than 20 feet wide, 10 feet high, and 100 feet long. Each end of this cavern is pinched off by a narrow continuation of the cavern that is about three feet high and two feet wide. These small tunnels are typical of the area.

The caverns entering from the hill region often lead directly into this cave network. Several longer tunnels, mostly of natural origin, lead to exits at dwarven mine shafts in the mountains. The tunnel leading to the lake ends in a watery wall; only the *permanent* effects of a *wall of force* prevent the water from flooding much of the area.

Denizens: Because of its relatively easy access to the surface world, this part of Deepearth is inhabited by creatures that like to leave their subterranean lairs to raid human settlements on the surface. Each raiding band has gained control of a small section of caverns, and usually is centered in an excavated area of dungeon corridors and rooms. Among the races holding parts of this area are troglodytes, goblins, hobgoblins, ogres, trolls, and lycanthropes. Although the individual members of these races fight each other at the slightest provocation, their communities manage to coexist relatively peacefully.

Additionally, a great number of unintelligent monsters roam the passages of this area. These include giant rats, bats, carrion crawlers, and other scavengers, as well as a few potent individual monsters such as a gibbering moulder, a greater basilisk, and a shambling mound.

A beholder also wanders among these tunnels, taking whatever it wants from anything it encounters. The beholder is the most powerful monster in the area, and all others give it a wide berth.

Resources: This area has plentiful supplies of air and water. No evidence of any kind of mineral wealth can be found. A variety of underground plants, including lichens, molds, and fungi, provide the basic element in the food chain.

Unique Features: The troglodytes control the largest collection of dungeon and cavern areas. In the center of their holdings they have cleared a large, circular amphitheater that is about 80 feet in diameter. In its center, they have erected a large, fungus-covered statue that seems vaguely humanoid. They worship this statue as their deity, although it is in fact a quite unremarkable sculpture of a human war hero. Each eye of the statue, however, holds a massive diamond (worth 10,000 gp each). These diamonds are completely covered by the fungus that spreads over the entire statue.

One of the pools in the area has some special properties. It is only three feet wide and one foot deep. Water drips slowly into it from a stalactite at the rate of one pint per year. The water somehow gains an enchantment during this process—becoming a *potion of infravision*. A character without infravision who drinks a pint of the water gains the ability with a 60-foot range, and retains it for a period of 2d6 weeks. Characters with infravision who drink the water lose the ability for a similar amount of time. There are 30 pints of water in the pool. If stored in an airtight container, it will keep indefinitely.

4. Cathedral Caverns

Geography: Unlike the series of caverns to the north, this region is made up of several very large limestone caves that are connected by narrower passages. Four caverns, ranging in length from 1d6 miles, run the length of the area, along with a number of side passages. Each of these large caverns has a ceiling that ranges up to 100 feet high in places. Likewise, each cavern has a few locations where it is 80 or 90 feet wide.

As in Area 3, these are living caves. Many of the cave formations common to limestone caves can be found in great abundance among these caverns. In fact, the presence of stalactites, stalagmites, and draperies is so overwhelming in the huge central cavern that the overall appearance is similar to an ornately decorated cathedral.

To the west, a narrow tunnel gradually rises to the level of the surface. A major process of excavation in the forgotten past drilled a connecting tunnel to a vast dungeon below the city on the surface. This dungeon is a vast, many-leveled affair, and only one route—concealed by a secret door—provides access to Deepearth.

One of the side passages off the central cavern is pierced by a sinkhole from the surface. This hole plunges 400 feet to the floor of the cavern, and is used as an escape route by a group of bandits living in the forest on the surface. This side cavern is partially closed off from the main cave by the rubble of a cave-in; characters only notice the passage if they successfully discover a secret door. A few hours of excavation clears a path large enough to allow humans to pass.

The water flowing through these caverns is clean and cold. Although a few still, deep pools are scattered about, most of the water flows down shallow and narrow stream beds. The streams tend to be about five feet wide and one foot deep.

Denizens: The denizens of this area depend less upon access to the surface than do the residents of Area 3. Only the proliferation of all types of bats indicates that the connection exists.

An isolated pocket of drow have established a lair in one of the side caverns. They are an evil and suspicious bunch, even by drow standards, and react hostilely to any intrusion. They are well-schooled in the tactics of underground combat, and know every passageway and hiding place in their area. The band numbers about 25 fighters and an equal number of noncombatants. Because they are so far removed from their homeland, these drow have none of the potent magical items usually possessed by their kind. They are very poor, and hold little to interest a thief from the surface world.

The ceiling of the central cathedral chamber is liberally lined with piercers. These nasty creatures will take any opportunity to drop on and pierce unsuspecting explorers. The drow have developed a faint trail leading around the outer rim of this cavern to avoid the piercers. The trail is not apparent unless actively sought.

A number of jellies and oozes survive in this area also, mainly on the leavings of the other denizens. Although a few rats are sometimes encountered, those pervasive rodents are not nearly as common here as might be expected. In the tunnel leading to the city, however, rats, giant rats, and even wererats may well be encountered. An assortment of otyugh and neo-otyugh also perform scavenging duties.

A 12 Hit Dice hydra suffered the misfortune some years back of falling down the sinkhole. Surviving the fall, the beast forced its way into the central cavern area, and has somehow managed to survive. (It was presumably the passage of this monster that caused the cave-in near the sinkhole.) Constantly hungry, and nearly berserk with frustration, the hydra presents a real threat to characters caught in this area.

Resources: One of the side caverns in the area leads to a

AREA 5: ENCLOSED CAVERNS

small cul-de-sac that contains a vein of shiny stones. A character stumbling into this region can gather a large number of the rough and uncut stones. A character with jewelry proficiency can identify the rocks as diamonds.

More mundane resources, such as air and water are here in plentiful supply. Sources of food include the usual subterranean plants, but there is not enough food for all of the inhabitants to eat well. The drow manage by stockpiling as much as they can, while the other creatures subsist off each other. The hydra, for example, eats scavengers and anything else it can catch, but is slowly starving to death.

Unique Features: The cavern occupied by the drow is protected by an elaborate series of traps and alarms. The only approach is through a 500-foot-long tunnel that is less than 10 feet wide along its entire length. At various points along its length the drow have placed pit traps, precariously balanced blocks of stone that fall on trespassers who trip camouflaged releases (6d6 damage), batches of shriekers, and an illusionary dead end to the tunnel. The last 100 feet of the tunnel climb steeply, and the drow have pots of oil ready to pour down upon intruders. Several niches for archers have been prepared so that defenders can shower enemies with arrows from positions of relative security.

In a corner of one of the small side caverns, a pool of thick mud bubbles and gurgles. Heated geothermally, the mud is very warm, but not dangerously hot. It contains significant quantities of gold dust, brought by ancient forces of erosion. While not visible in the liquid mud, the gold becomes quite apparent if the mud is dried and the dust blown away. A character who is coated with the mud, which then dries and crumbles off, collects about 20 gp worth of gold. The whole mud pool contains more than 10,000 gp worth of gold, but it would take a major commitment of time and effort to excavate and dry the entire pool. The mud pool is about 20 feet wide and five feet deep.

5. Enclosed Caverns

Geography: This area of natural caverns is filled with air, but the only entrance and exit are completely water-choked. The subterranean river flows into the enclosed caverns from the cave on the south shore of the great lake on the surface. The water flows through a tunnel with a high ceiling for many miles, meandering along at a flow rate of 3 to 4. At the point where the side tunnel joins the river, just upstream from Area 5, the river widens and slows. A wide sandy beach allows easy beaching of boats. Ahead, the river continues placidly along.

One mile before reaching Area 5, the water picks up speed and tumbles along as a rapids. Abruptly the current advances to cascade level and pours through a hole just wide enough for the water. Since there is no airspace, boats capsize and fragile appendages such as masts and tillers are usually (80% chance) swept away. After two rounds, the river empties into a quiet pool in a vast cavern.

This entry cavern connects to eight other caves, each less than a mile long. The connections between caves pass through tunnels less than two feet in diameter. All of these caves are of natural origin.

The river meanders through the main cave, but at the far end plunges through a water-filled opening. The river continues this way for 50 feet before the tunnel opens slightly. It flows along less than one foot from the ceiling for about six miles before plunging over a long waterfall (see Area 14).

Denizens: Several bands of intelligent creatures dwell among these caverns. The most pathetic is a band of humans—the pitiful castaways of a dozen previous expeditions. Their boats were wrecked before entering the cavern, and they elected to remain rather than attempt to float out the far end. Several individuals have attempted to escape that way, always with the promise to

return if safe passage was found. Of course, none returned.

These humans, numbering about 20, are mostly men. They live off the few fungi plants in the adjacent caverns, and an occasional fish. (Some of these fungi glow with a greenish phosphorescence and serve as feeble light sources.) They have a ragged collection of weapons among them. Most of them are quite mad and, although relatively harmless unless threatened, the very appearance of the gibbering, drooling pack of castaways is cause for concern. The humans represent all varieties of character classes. Their experience levels should be tailored to balance your PCs.

The dreaded nemesis of the humans is the other intelligent race represented in the caverns: a small outpost of kuo-toa. These fish-men are not trapped in the area since they can freely travel underwater. The band in the cave contains 6d6 kuo-toa. Their purpose is to guard the chute where the river leaves the cavern, prevent unwelcome visitors from journeying downstream, and carry warning if a force is too large to stop.

About once a month, the kuo-toa sweep through the caverns in search of food or slaves. Any humans captured are bound and sent downstream with a heavy escort. Many do not survive the trip. Often one of the kuo-toa assigned to the lonely outpost goes insane and wanders off into the caves alone.

Unintelligent denizens include a variety of fish and an assortment of hapless mammals. Rats are common, and beavers, weasels, and rabbits are all in evidence. Occasionally a freshwater scrag follows the stream into the cavern. A deep pool is located at a riverside spring about halfway through the cavern. This is the lair of a nereid.

Resources: The foaming water that passes through the caverns assures a steady supply of fresh air. Plant food is limited to a few varieties of fungi, but fish are plentiful for those with nets, and occasionally animals are swept down the river as well.

Many valuables line the river bottom here, spilled from boats that capsized before entering the cavern. These include a large number of coins and all sorts of mundane armor and weaponry. A character searching the river bottom has a 1% chance per hour of discovering one of the following items: *plate mail* +2, *shield* +2, *shield* +3, *longsword* +1, or *spear* +3.

Unique Features: The kuo-toa have attempted to block off the downstream end of the tunnel with a large net. The net stretches across the surface of the river, but stops several feet short of the bottom. The men-fish have excavated a rather involved series of rooms for their outpost, including three vertical levels, secret doors, and an elaborate food-storage chamber.

6. Caverns of the Ancients

Geography: This relatively small series of caves shows considerable evidence of excavation and decoration. The area consists of a single entry tunnel, smoothed and widened to a uniform width of 30 feet and ceiling of 10 feet. This corridor leads to a huge, domed chamber nearly 1/2 mile in diameter. Massive stone columns support the ceiling. In the exact center of the chamber is an elaborate temple carved with bestial shapes.

The temple is surrounded by concentric rings of two- and three-story stone buildings separated by wide, smooth avenues. In the cavern wall, a ring of crude stone barracks provide the only simple quarters in this ancient city.

At the end opposite the entrance tunnel stands a tall palace, surrounded by elegantly thin columns. Huge brass doors stand shut—the only closed doorways in the city. Hundreds of rooms branch out to either side of the main entrance, and the facade towers fully 100 feet high and stretches for 300 feet to either side.

At 60-degree intervals about the circular walls of the cavern, five additional tunnels branch out to smaller caverns. These are now uniformly dusty and empty, although they once served as

farmland for the residents of the city.

Denizens: The original builders of this city were the duergar. Shifts in the water table centuries ago caused their wells to dry up, and the race was forced to migrate deeper under the ground. Now, not a single creature or plant lives in the area. There are nonetheless denizens here—unliving denizens.

An honor guard of undead stands at attention around the massive hall of the palace. Hundreds of zombies, skeletons, and mummified leaders stand arrayed to lead the host to battle. If the doors to the palace are opened, the orders to attack are given. The undead pursue a foe only to the juncture of the tunnel from Area 6 with that to Area 7.

Resources: No fresh air has entered this region for centuries. The area is completely dry—there is not so much as a cup of water here. The air is stale and smells faintly of decay. It is of very poor quality, and characters exerting themselves have to stop, gasping, after 2d6 rounds. Recovery takes 1d6 rounds.

Virtually all items of value were stripped from the city by the duergar upon their emigration. Stone furniture is common in most of the buildings, and few wooden items (shelves, chairs, etc.) have survived. The wood is fragile and quickly crumbles under pressure.

The side caverns were once used to raise edible fungus, and to corral cave-pigs and other livestock. Now, a thick layer of dust covers dry soil in each of them.

Unique Features: A secret trapdoor in the floor of the great palace hall leads to a large smithy. Great furnaces, long since extinguished, line the walls, and a massive black anvil occupies the center of the shop. The anvil radiates strong magic. It is the *forge of power* of the duergar. It weighs 25,000 gp. Any weapons or armor hammered into shape upon this anvil gain an enchantment bonus of +1. This cannot be used to improve an existing weapon, however. When combined with the *hammer of substance* wielded by a dwarven or duergar smith, weapons of +2 or even +3 enchantment can be created.

7. Grand Canyon of Deepearth

Geography: This yawning chasm stretches over ten miles in length, and is fully a mile wide. The ceiling of the cavern arches naturally, and the area has withstood many a tumultuous earthquake and other natural disaster. The ceiling is about 200 feet high at the point where the tunnel from Area 6 enters. The canyon walls gradually grow closer together as they descend. They meet in a boulder-and-rubble-filled gorge over a mile below.

The canyon was originally excavated by water erosion. In fact, a great river once cut a path through it. The same shift in water table that dried up the duergar wells caused the river to cease flowing. The canyon is now similar to a dead cave, except that few cave formations have developed. It is not as dusty here as in some other regions, perhaps because of the faint breezes brought by circulating air.

The walls of the canyon are cracked and riddled with ledges, chimneys, and other irregularities. The rock is old, but generally stable—it is not likely to break off when climbed. No bridges cross it at this height.

Across the canyon from the access tunnel, the cavern continues to wind into the earth. About 3,000 feet below this level, another series of caverns enters into the canyon on one side and continues out the other. These caverns are about two miles south of the tunnels on the upper level, so characters scaling straight down the walls do not discover them.

The walls of the canyon are pockmarked regularly with limestone caves, some of them as deep as 300 feet. These cave mouths occur at intervals of about 500 feet above, below, and to the sides of each other. In some cases they are closer together, and in others more widely separated.

At the ceiling of the cavern, several narrow vertical shafts lead upward to join a major tunnel that eventually connects with the sewer system of the large city on the surface. These tunnels range from 1-3 feet in diameter, and often climb straight up, so they are of little use to any creatures except bats.

Denizens: Bats inhabit the canyon in great numbers. Most of these are of the harmless normal varieties, but several hundred mobats also live in the canyon. The latter subsist off of the former to a great extent, but the mobats also aggressively attack any large warm-blooded canyon intruders. Fortunately for said intruders, the mobats do not attack all together, but in groups of 2d6 at a time.

Several of the small caves branching off the canyon are the lairs of cave fishers. These voracious carnivores attempt to strike any flying or climbing creatures that come within their reach. The bottom of the canyon is regularly scoured by a pair of giant slugs. Many of the smaller side caves are inhabited by giant centipedes, and carrion crawlers regularly move up and down the walls.

The only intelligent denizens are a small group of cloaklers living in one of the highest and most remote of the side caves. The cloaklers are 50% likely to be attracted if the mobats attack an intruder. The cloaklers fly to the combat scene and wait for the bats to either be driven off or claim their victim. After the fight, the cloaklers close in and polish off the wounded intruders or seize a few of the bats.

The cloakler community numbers about two dozen individuals. They do not attack as a group, however. If an encounter occurs, balance the number of cloaklers used with the levels of your player characters.

Resources: This canyon has a plentiful supply of fresh air because of all the access tunnels leading to it. Water is much less abundant, however; it is confined to a number of stagnant pools among the rocks at the bottom of the canyon. While some of these pools are very large and deep, none of them receives any fresh flowing water. Characters who drink the water have a 50% chance of contracting a disease, as in the *cause disease* spell effect.

Food supplies are limited to the creatures living here and a few lichens and fungi growing in narrow niches upon the canyon walls.

8. Fungus Forest

Geography: This area is connected to the canyon by one of the access tunnels, and also can be reached via a long natural cave from Area 9. A number of large, relatively open caverns join to form a maze-like circle of rooms. Many of these chambers are several hundred feet in diameter and 50 or 60 feet high. Even the tunnels connecting the caves to each other are relatively broad and high. There is no passage that would impede the movement of a large ogre or similar creature.

The caves are relatively devoid of cave formations, although an occasional stalactite descends from above. Any features that might have once arisen from the floor have been removed. With the exception of this modification to make the floors smooth and easy to walk across, the entire area is the product of natural erosion, not of intelligent creatures' excavation.

Denizens: Each of the dozen or so chambers in the area is literally carpeted with thick growths of fungi. Every variety of mushroom, including shriekers, violet fungus, and a host of edible fungi grow in these caverns. The floor of each chamber is lined with a deep layer of soft loam, and a faint smell of decay hangs in the air.

Many of the fungi have been carefully tended and cross-bred so that they grow to extreme heights. The caps of the tallest mushrooms tower as much as 30 feet over the floor. Narrow paths lined with crushed stone wind among the fungi. Movement off the

AREA 8: FUNGUS FOREST

paths is virtually impossible without crushing some of the fungi.

The tenders of this vast underground plant garden are the members of an isolated band of myconids, or fungus men. The myconids live in a large, central cavern—the only one not choked with growing fungi. From here, they dutifully move among the other caverns, tending the fungi by cleaning off any blight and clearing away any creatures that threaten to eat them.

The most important duty of the myconids is the irrigation of their fungus forest. Since there is no natural water supply in the area, they journey down the tunnel to Area 9 in a regular relay, returning with huge, inverted mushroom caps filled with water. The precious moisture is then allocated in precise amounts to the various caverns, keeping the fungi crop healthy and thriving.

This branch of myconid society includes all levels of fungus men, representing a full circle of 20 individuals. The myconid king is a very old fungus, and takes his responsibilities quite seriously. Although not hostile or warlike, the myconids guard their domain jealously, and tend to drive off intruders rather than inquire as to their purpose.

The king has animated a number of zombies with his *animator* spores, and these serve as the initial guardians of the area. The myconids do not participate in combat unless all of the zombies

have been defeated. The zombieified creatures include several humans, a number of mobats, a pair of derro, and a host of jermalaine.

Resources: The air here circulates fairly well because of the tunnel linking to Area 7. Nonetheless, the dampness and mustiness fostered by the loamy floor and spongy inhabitants creates a closeness that makes the air unpleasant to breathe. Water, as mentioned, must be imported into the area. The myconids maintain a stone cistern for their own use, and the rest of the water is used to keep the soil moist.

The fungus forest could provide a virtually unlimited food supply to any hungry creature with access to it. The guardian myconids make this access very difficult, however.

Unique Features: One of the caverns contains fungus that thrive with limited light. A small boulder, about one foot in diameter, has been enchanted with *continual light* and *permanent levitation*, giving the stone a very slight negative buoyancy. When a myconid tends the fungus in this room, it kicks or hurls the glowing stone into the air. Over a period of several hours, the stone slowly sinks back to earth. When it is airborne, it sheds steady illumination over the entire room. When it falls back to the ground, only the area immediately around it is illuminated.



9. Caverns of Doom

Geography: This is a key section of Deepearth because it connects routes to and from so many different places. To the west, a long, gradually sloping natural cavern leads to the vast dungeon below the city on the surface world. This cavern is blocked with many natural obstacles such as pits, chasms, and cliffs, which make it very dangerous to travel through. The route is generally 1d3 x 10 feet wide, and equally high. Like all the other areas adjacent to Area 9, it is a dead cave. The water that carved it has long since ceased to flow, and the cave formations have grown brittle and lost their shine.

Five other caverns branch off this huge complex and lead to the other areas shown on the map. These are all natural caverns, and make for generally rough travel. None of them are blocked with the pitfalls that mar the route to the city, however.

The Caverns of Doom contain a vast network of natural caves that are often linked by dungeons and excavated tunnels. Six central caverns, each linked to the other five, make up the bulk of the area. These caverns are truly immense, with ceilings towering hundreds of feet over the floor, and widths approaching 1,000 feet. They range in length from 2d6 miles each.

The floors of these caverns are rough, and split by many chasms, cliffs, and huge piles of rubble. Traveling through them is difficult, but by carefully picking a route around the obstacles, even a mule can make the passage. Even the connecting routes between the caverns are at least 20 feet wide and 10 feet high.

Denizens: The Caverns of Doom are home to a whole host of underground dwellers. The name, incidentally, is derived from the tales of adventurers who penetrated this region and returned to the surface to tell of its terrors. These adventurers generally assumed that they had descended into the utmost depths of the earth, and that little or nothing of interest could be discovered beyond this area.

The most proliferate denizens of the region are the jermalaine. Small bands roam throughout the entire area, and a large community of jermalaine occupies the northernmost cavern in the area.

Other caverns contain pockets of drow, duergar, and pech. The members of these three races, as well as the jermalaine, are not on friendly terms with each other, and occasional violent flareups occur. Although the duergar have attempted to create some fortifications for their lairs, the rest of the creatures roam throughout the caverns.

Small bands of hobgoblins, goblins, and troglodytes live in the dungeon beneath the city, and in the cavern leading from the city to Area 9. Occasionally these creatures are encountered here as well. Such monsters, when encountered, are usually in a small raiding party that attempts to pillage the possessions of the permanent denizens.

Many unintelligent denizens dwell among the tunnels and caves of the Caverns of Doom. Giant toads, stirges, piercers, large and huge spiders, jellies, puddings, molds, rust monsters, cockatrices, gargoyles, wraiths, and wights all roam the area in small numbers.

In addition, an assortment of fungi have sprouted in most parts of the caverns where water exists. Although shriekers or violet fungi are occasionally discovered, most of the fungi are of normal, and even edible, types.

Resources: The Caverns of Doom are the only portions of this entire section of Deepearth that have a decent water supply. This is due to a complicated irrigation system developed centuries earlier, presumably by the duergar or svirfneblin. The system relies on several tubes cut through the rock to Area 4. These pipelines are less than two feet in diameter, indicating that the deep gnomes were the most probable builders. Water is drained from several of the streams running through Area 4, and diverted

through the pipelines to three separate caverns in Area 9. The communities of the duergar and jermalaine monopolize two of these water sources, but the third is centrally located and shared by all of the other denizens of the area, as well as the myconids of the fungus forest.

The duergar and drow each maintain large herds of cave pigs. In addition, the gray dwarves grow a flourishing collection of edible fungi, while the nomadic drow harvest the fungi where they find it.

The pech have located a wide variety of precious metals and stones in various places throughout the Caverns of Doom. These persistent miners generally exhaust each claim before moving on to the next, but the evidence of their past mining activities is obvious in many places.

Unique Features: In one of the caverns, the pech are currently engaged in one of their most ambitious excavations: a rich diamond mine. The other denizens of the caverns have not been able to figure out where the mine is. The pech furtively decide upon the exact area to be worked, and then employ their *wall of stone* collective spell ability to screen their work area from all outside intrusion. The low oxygen requirements of the pech allow them to remain sealed in a relatively small area for many weeks.

A fortified area constructed by the duergar surrounds their water supply, which is a large pool fed through a spout in the ceiling. The entire area is accessible through three narrow caves. Each of these is blocked so thoroughly that creatures larger than the gray dwarves have difficulty squeezing through. In addition, the duergar have carved access tunnels over each of the three caves, with small holes leading into the caves below. Here the duergar maintain a large supply of acid that can be cast onto intruders approaching through the caves below.

The jermalaine live in a honeycombed section of stone. Their dwellings have been carved from the area immediately surrounding the water pipe. Many of the high-ranking jermalaine have small streams running through their lairs. The passages between the jermalaine lairs are only about 18 to 24 inches in diameter, so intrusion by larger creatures is difficult. In addition, the outer exits of the jermalaine lairs have been dug into the wall of a large cavern about 20 feet off the floor. Rope ladders hang from each entry tunnel, allowing the jermalaine to quickly pull them up in order to forestall attackers.

10. Sunken Swamp

Geography: This unusual area is the product of an ancient earthquake—probably the same one that adjusted the water table and dried up the nearby caves. Originally, the entire region lay upon the surface. A tall, thick forest flourished under the steady rays of the sun, and many small villages nestled among the trees.

Then faults deep within the earth were split asunder, and the land fell. Trees, buildings, animals, and humans were tossed into the gaping holes that opened within the earth, and massive walls of rock toppled inward, crushing most of the unfortunate victims of the quake.

In a few places, however, the massive faces of rock wedged against each other, leaving vast hollow spaces below them. In those spaces humans and animals miraculously survived.

More than a dozen huge chambers make up this region. The nature of the faulting has resulted in areas of 1,000 to 4,000 feet wide and 3d6 miles long. Unlike most of the realms of Deepearth, the caverns of the sunken swamp are lined with dirt. The timber and living plants have long since rotted, creating a damp and spongy surface. Many small streams trickle through the cracks in the fault above, dropping a fine mist throughout the area. Slimy mosses and fungi line the rock faces and glow enough to provide a dim light source.

AREA 11: OUTPOST OF THE ILLITHIDS

The separate caverns of the sunken swamp were originally isolated from each other by vast, choking mounds of dirt and tree trunks. Throughout the centuries, however, the survivors of the quake and their descendants have worked hard to link the caverns. Now, wide, straight tunnels slice through the mounds of earth, linking each cavern to at least two others. The tunnels have been shored with ancient timbers from massive trees, which were thoroughly soaked in oil to delay their inevitable rot.

Denizens: The humans who survived the earthquake continued to live and reproduce in their new, dark environment. As the generations passed, however, memories of life on the surface faded. Now none of them can recall the origins of their land, although legends tell of a great, cataclysmic punishment meted out by vengeful gods. Those who survived, legend has it, were the chosen few selected to purify the race and start over again.

In fact, however, the humans of the sunken swamp have degenerated with each successive generation. First cleanliness, then education, then clothing were abandoned by these pathetic descendants. Now their state might best be described as sub-savage. Cannibalism is not unheard of among these folk. They have splintered into several small groups, each certain that they alone are the race chosen to lead the rest.

Each of the large caverns in the area hosts a human population ranging from 50-100 dirty, scraggly people. Their speech has become very primitive—a means of conveying emotion rather than information. They are suspicious and distrustful of all strangers, but are not automatically unfriendly. In fact, these people are very curious about the rest of the world, and if visitors arrive peacefully, they are usually invited to stay for a few weeks. The natives display great curiosity and interest in their visitors during this period. After this time of study is over, the visitors are eaten.

Occasionally, the population of the sunken swamp is swept up in a brief period of savage warfare. No group accepts any allies, so the result is a massive and deadly free-for-all, with each group treating all other groups as mortal enemies. After a few days of slaughter and bloodshed, the survivors lose interest in the conflict, and a great reconciliation council is held. The high point of the council is the devouring of the war casualties.

Other creatures also live on the spongy loam of the sunken swamp. Most varieties of underground scavengers are present. A few shambling mounds have found comfortable lairs here. Snakes and spiders of all types enjoy this environment, as do monstrous toads and frogs. Plentiful growths of fungi provide key food elements for humans and some of the other inhabitants.

Resources: The steady misting rain from the surface creates a region of high humidity. In many places, water showers down on characters. The air is muggy and thick, smelling heavily of decay and death. Oxygen, however, is fairly plentiful, as the air seems to circulate through the same vents that give access to the water.

The spongy earth of the sunken swamp is easy to dig, but not solid enough to hold its shape. Thus, it is not used to create burrows or above-ground structures. In a few places, the remains of the forest have stayed dry and created a substance similar to peat, which burns for a long time when ignited. It creates a very smoky and smelly fire, however, so it is not commonly used by the residents of the sunken swamp.

Unique Features: A few structures from the surface survived the quake relatively intact and have come to be regarded as sacred places by the folk of the sunken swamp. The most prominent of these is a vast temple lying in the center of the largest chamber. This temple is surrounded by shattered stone columns and the rubble of a large community. The temple itself is a squarish structure made of solid blocks of stone. The roof collapsed when the building fell, but all of the walls remain. The inside of the temple includes a large, central courtyard and a number of smaller rooms around the periphery of the building. It contains a

number of gold, silver, and platinum relics of ancient religious value—relics that the current residents have no use for. In fact, the temple is one of the safest places in the sunken swamp since the human inhabitants hardly ever venture there.

A few other stone structures, all without roofs, lie scattered among the caverns of the sunken swamp. These were once sturdy and solid structures, such as vaults, armories, and prisons. In one cave, an armory still contains an assortment of corroded normal weapons. The weapons could be made quite useful with a little sharpening, but the residents do not employ them since they have been declared sacred.

The smallest of the caverns in the sunken swamp is unique in that it receives no natural water from above. Consequently, the trees and wooden rubble from buildings did not rot. Instead, a rapid form of petrification set in. This wood looks virtually the same as it did when it landed after the earthquake. The wood has grown hard, almost stone-like, and cannot be burned.

11. Outpost of the Illithids

Geography: This is primarily a large central cave with four connecting smaller caves branching in the four cardinal directions of the compass. Each of these smaller caves is higher than the central chamber, and each pours a small trickle of water into the central cave.

The caverns are all of natural origin, and are bedecked with the full array of beautiful cave formations. The small amount of water here is enough to insure that these are living caves.

The side caverns are relatively narrow, never more than 50 feet wide at their widest point. Their ceilings sometimes climb as much as 20 feet from the floor, but more often drop to heights of six feet or even less. Each of these side caverns is about a mile long. The large central cave is nearly a mile in diameter and is more circular in shape. The ceiling climbs more than 100 feet above the floor in the center of the cavern. Earlier denizens erected a series of six mighty stone pillars to support this roof. At the center of the large cavern, the four narrow streams converge to feed a small pond. The pond has no surface outflow; the water leaks through the porous rock on the bottom and seeps slowly through the earth.

Denizens: The only intelligent beings inhabiting this remote section of Deeperth are the mind flayers, or illithids. About 25 of these repulsive creatures live in the large central cavern. Occasionally they send out small groups to explore and scout nearby areas. Although these scouting parties sometimes return with prisoners offered as fodder for the other illithids, their main purpose is to keep track of the subterranean activities in the area, and to sound the alarm over any invasion of the illithid homelands far below.

The only other denizens of this area are an assortment of scavengers, including carrion crawlers, otyughs, rats, giant rats, slimes, jellies, and oozes. These foul creatures generally remain in the four side caverns and survive on carcasses left behind by the mind flayers.

Resources: Four small streams provide the caverns with a limited but steady water supply. The air is smelly and stagnant, but neither the illithids nor the scavengers seem to mind.

Unique Features: The mind flayers live in a small group of stone buildings erected by the caverns' previous dwarven occupants. The one-room structures are arranged in a circle around a central pool. A single mind flayer guards each of the four caves leading into this area.

The mind flayers keep a substantial trove of treasure piled loosely in a secret room below the floor of one of the huts. The trap door leading to the room should be treated as a secret door. The treasures include coins of copper, silver, electrum, and gold, as well as a few gems. A couple of magical weapons, several

scrolls, and a half-dozen potions round out the collection. If the treasure is discovered by your PCs, tailor the gp value of the treasure and the specific weapon and magical item descriptions to the needs of the group.

12. Combat Zone

Geography: This is one of the most wide-open areas of Deepearth—over three miles wide and four miles long. Very little of this area is filled with rock. The combat zone was originally a large natural cavern, but centuries ago a cataclysmic earthquake wreaked fearful changes here. Somehow, a few towering blocks of stone remained in place, supporting a vast ceiling. Most of the rock around the caverns fell away into the depths of the earth, creating a landscape that is now treacherous and bizarre.

A dozen mighty blocks, each hundreds of feet in diameter, support the sagging ceiling. The floor of the cavern is split with so many gorges, chasms, and cliffs that it is impossible to walk more than 100 feet at the same elevation. Some of these obstacles drop or climb a mere 10 or 20 feet, while others present barriers 100 feet high (or deep).

Unlike the sunken swamp, material and creatures from the surface did not fall into this region. A thriving jermalaine community in the original cavern was decimated, however, and the survivors have not tried to rebuild or re-excavate their homes. The combat zone is connected to Areas 9 and 13 by narrow caverns. These connecting passages were originally natural caves, but have been widened by the jermalaine to allow parties of the diminutive humanoids to pass. These connecting passages, at their smallest, are about three feet high and five feet wide.

Denizens: The combat zone gets its name from the ongoing conflict between its two major groups of denizens: the jermalaine and the pech. The jermalaine are numerous, but unorganized. They live in a collection of small caves among the bases of the support pillars. While no less malicious or vandalistic than is usual for their race, these jermalaine are less effective foes than most of their kin. Perhaps the shock of the earthquake has left a deep impression on them, or maybe constant setbacks in their ongoing war with the pech have caused their defeatist attitude. In any event, these jermalaine have a tendency to run from danger long before the situation seems to warrant retreat.

The pech inhabiting the combat zone, on the other hand, are a disciplined and business-like group. Numbering less than 100, the pech are outnumbered at least 10 to 1 by the jermalaine. The latter regularly attack the pech work parties and are routinely driven off. The pech roam freely throughout the vast chamber, pulling heavy stone wagons from one location to another in their search for mineral wealth. The pech use their innate *wall of stone* ability to erect bridges and ramps that enable them to pull their wagons with them wherever they go. When the jermalaine attack, the pech instantly cease working and break into combat units. Fighting with skill and dedication, they invariably drive off the foe while sustaining minimal losses.

Other denizens of the combat zone include hordes of rats that live among the jermalaine, and many bats, including mobats, which enter and leave through unknown routes through the ceiling. A chimera also roams among the pillars, and several nests of basilisks are located among the lowest reaches of the chamber.

Resources: This huge chamber is well-supplied with air and water. Hidden passages in the lofty ceiling allow air to circulate throughout the area. As in the sunken swamp, water flowing on the surface seeps through in several locations, providing a steady supply of water below. Instead of falling from the ceiling as a misty rain, however, the water tends to run down the sides of the massive supporting stone columns. The sides of these columns are cracked and rough, and the water spills down from cracks to ledges, creating many small waterfalls. The sound of splashing



AREA 13: EMPTY CAVERNS

and flowing fills the chamber. Small pools of fresh water have formed at the base of many of the pillars, but because the cavern floor is cracked and porous, these pools quickly drain away to areas still deeper. No streams flow along the bottom of the combat zone.

The tumultuous forces of the earthquake brought slabs of rock from widely varying levels of the earth into this chamber, and it is this diversity that has drawn the pech. Veins of iron, lead, and gold are all accessible here. In addition, the pech have excavated small deposits of jade and onyx. Several other types of gemstones lie near the surface, but have yet to be discovered.

Unique Features: The bridges and ramps erected by the pech create a haphazard series of pathways throughout the roughly floored cavern. Most of these are sturdy enough to serve any creatures who use them, but about 20% have been sabotaged by the pech and will collapse if anything heavier than 50 pounds (500 gp) tries to cross them. The pech used their skill at stonework to chip away the bulk of the stone bridges, leaving just a hollow shell. Alert characters who tap the stone before venturing onto it will notice a hollow sound.

In 16 different locations throughout the chamber, the pech have excavated small holes in which to store their treasures. These holes are sealed over with *wall of stone* spells. The magical stone is cleverly camouflaged to resemble the stone natural to the area, but nonetheless radiates magic if in the area of a *detect magic* spell. Each of these treasure troves contains an assortment of gems worth 2d6 x 1,000 gp, and a pile of gold coins worth a similar amount. In addition, hundreds of lead and iron ingots fill each trove. The *wall of stone* covering each trove is 16 feet thick.

13. Empty Caverns

Geography: This section of cave is attached by a narrow tunnel to Area 12 (the Combat Zone) and to Area 7 (Grand Canyon of Deepearth) by a narrow crack in the southern end of the canyon. The caverns themselves are numerous and fairly small. A maze of interconnecting passages allows fairly easy access throughout the area to creatures smaller than human size. In some areas, passages of less than 18 inches in diameter restrict the movement of many creatures.

These caves are all of natural origin, but water no longer flows here. They now present classic examples of dead caves. Their cave formations are dull and brittle; the slightest pressure is enough to break them apart. Dust covers everything in the area.

Denizens: The only denizens of the empty caverns are thousands of bats that often fly here to sleep, clinging to the walls and ceiling, a few basilisks that attempt to prey on the flying mammals, and swarms of scavenging carnivorous beetles that crawl about on the floor.

Resources: Air circulates through the caverns because of the ventilation from both ends of the area. There is no water, fungi, or mold here.

Unique Features: In the area's largest cave, a number of tunnels have been excavated in one wall. These were at one time the lairs of a group of intelligent creatures, but were abandoned when water sources dried up. Now the tunnels are as dusty and decayed as the rest of the area.

14. Reclaimed Caverns

Geography: These caverns were once part of a subterranean lake, and were almost completely filled with water. Only the diligent efforts of a group of pech miners has blocked off the water flow and enabled air to fill the bulk of this area.

The reclaimed caverns are accessible only through the two waterways flowing into them on the north side, and the continuations of these streams flowing out from the south. The course of

the river flowing from Area 5 is made dangerous by a 500-foot waterfall that plunges into a deep pool before resuming a more placid journey downstream to Area 14. The latter part of this journey is through a cavern that allows about six feet of airspace over the surface of the river.

The easternmost of the two rivers goes underground at the base of a huge mountain waterfall, plunging several thousand feet from an isolated gorge to disappear through a sinkhole and begin a hidden course. This river flows at a rapid pace from its first moments underground until it reaches Area 14. Here, however, the airspace over the water is a minimum of 10 feet high. Since the sinkhole allows fairly easy access to the water below, this river provides a navigable means of reaching Area 14.

The area itself comprises three long, narrow caves running parallel along an east-west access. Each cave opens onto the river, and numerous connecting passages unite the caves along their courses. By dint of heroic applications of *walls of stone*, the pech have built dikes to prevent the water from entering the three caverns. Although small streams still flow through, they do not constitute a menace to the area's thriving population.

This area provides both dry and river routes that extend deeper into the earth. Thanks to the efforts of the pech, a bridge crosses the easternmost river at the end of the middle cavern. The bridge connects with a partially excavated, partially natural cavern that descends slowly over a course of many miles. This cavern is eight feet high and 12 feet wide.

Because these caves were filled with water until relatively recently (geologically speaking), they are devoid of common cave formations. In fact, their floors, walls, and ceilings are almost uniformly smooth, since they have been polished by the action of water through many centuries.

Denizens: The primary inhabitants of these caverns are the pech, whose efforts have reclaimed the three caverns from their watery origins. With their unerring instinct for potential mining sites, they set about opening the caverns to mining. They have profited from doing so—major deposits of iron and copper have been discovered here. The pech have created a well-organized community in the center of the middle cavern, from which mining parties journey to the excavation sites and return with loads of ore. A total of about 300 of these industrious miners live here.

Plant life now thrives here as well. All sorts of fungi grow in remote corners of the caverns.

An assortment of monsters also roams these caverns, living off the fungi and any prey they can catch. Their numbers include a small group of marine trolls (scrags), several shambling mounds, a gibbering moulder, many cave crickets, throat leeches, ropers, an owl bear, rust monsters, and cockatrices.

The area is also subject to the depredations of the kuo-toa that dwell in Area 15. These men-fish would like to see the entire area filled with water again, so they regularly attempt to sabotage the efforts of the pech by damaging the dikes or attempting to divert the river so that it floods into the caverns. The kuo-toan war parties generally number about 20-25 individuals. They savagely attack any creatures they run into, but especially seek out the pech. Thus far, the men-fish have always been defeated in these conflicts; but they send up another war party every few months, forcing the pech to constantly maintain their guard.

Resources: The rivers flowing into the region have enough air space above the water level to maintain a constant supply of fresh air. The many voracious creatures that reside here manage to find enough to eat between the fungi and fellow creatures.

The pech operate a number of large-scale mining operations, and have stockpiled large amounts of copper and iron ore. Except for limited amounts needed to make their tools and weapons, they seem to have little use for the minerals. Nonetheless, they guard their hoard with fanatical dedication.

Unique Features: The pech have built an elaborate pumping

system to drain off excess water that flows into the caverns. The system relies on a series of drains placed in the low spots of each of the three main caverns, and a huge centrifugal pump used to divert water to Area 15. The centrifugal pump is a marvel of engineering. It is powered by a giant water wheel located where the bridge crosses the eastern river. The water wheel spins a large fan in one of the drainage pipes. As the blades turn, water is pulled through the pump and hurtled on its way to Area 15. When the water wheel is spun quickly, as is the case when the water level of the rivers is exceptionally high, this pumping system can move an incredible amount of water.

Simply by shifting a large lever, the pump can also be used to activate a ventilation system over a large smelting plant and forge operated by the pech. This plant is located in the center of their small stone community, and can burn great quantities of coal in a few hours. When the plant operates, the pumping system pulls the smoke from the smelter and runs it through a vent to be released on the surface. It eventually exits through a one-foot-wide aperture into a remote mountain valley.

The pech community is well-organized and neat. The buildings are stone, and tend to be stacked three or four deep. Narrow, winding alleys provide access between the buildings. The pech also have a number of large stone wagons used for pulling loads of ore. Several of these are parked about the community at all times, often blocking one or more important avenues.

15. Upper Lake of Deepearth

Geography: This subterranean chamber is almost completely water-filled. Although walls and columns of rock support the ceiling, most of the area is open. The water level falls a dozen or more feet short of the ceiling in most places, although in some areas the ceiling drops down to, or below, water level. Nonetheless, boat travel is possible over most of the Upper Lake.

At the west end of the lake lies a shoreline that can be reached through a dry tunnel branching down from Area 6. Parts of this tunnel run through natural caverns, but much of it has been carved by intelligent denizens. It serves as one of the major avenues to the surface world. On the shoreline of the lake are a number of stone piers, obviously constructed by intelligent creatures. There is a 50% chance that 1d6 longboats are moored here at any time. This shoreline is a shelf of rock ranging from 10 to 400 feet wide. It is the only part of the entire chamber where one can walk on dry land.

The lake's depth varies from 10 to 100 feet. Its waters are cold and, for the most part, still. Only where the twin rivers from Area 14 enter does any turbulence mar the surface. In the depths of the lake, near the center, a small hole lets water drain to the lower levels of Deepearth. The outflow from this drain almost perfectly matches the inflow from the two rivers, so the lake's level remains fairly constant.

Denizens: Although the lake appears to be placid, it is teeming with life. Not only do the kuo-toa dwell here in great numbers, but many varieties of blind fish swim about in the inky waters.

The kuo-toa have developed a sophisticated community on the bottom of the lake, near the drain. They have built a number of great domes over areas designated for food-raising, living quarters, fingerling hatcheries, government centers, and recreation. These domes are mostly water-filled, but each contains small pocket of breathable air at the top. Air-breathing prisoners are left here, since escape is virtually impossible.

Giant catfish, giant pike, giant gar, lamprey and numerous trout, perch, and salmon lurk in the depths of the lake. Other water dwellers include water nagas, giant otters, giant crabs, giant snapping turtles, scraggs, and lacedons (marine ghouls).

Aboleth may also be encountered in the depths of this lake, although such encounters are best avoided. The aboleth are per-

haps the most purely evil denizens in all of Deepearth. They are found in small groups here, and actively seek to avoid contact with the kuo-toa. All other creatures are fair game and, if they have a chance, the aboleth seize any unfortunate characters who cross their path, dragging them far into Deepearth as slaves.

Resources: Water is obviously plentiful here, and the air that exists is quite breathable. A number of varieties of aquatic fungi and brown algae are commonly found in the water. No minerals or other resources are known.

Unique Features: The drain at the bottom of the lake is regulated by the kuo-toa so that it always drains away water at the proper rate. The men-fish have placed a number of boulders around the drain, and use them to block off part of the hole if the flow of water into the lake slows. Other rocks can be pulled out of the way if the flow needs to be accelerated.

The domed city of the kuo-toa lies next to the drain, in one of the deepest parts of the lake. The city is typical of kuo-toa communities, and is organized in a pattern of six major domes laid out in a hexagonal pattern. Each of the domes is about 150 feet in diameter and 50 feet high. The top 20 feet is filled with air. Within their walls, an elaborate network of corridors and rooms nestles around elevator shafts. These shafts are nothing more than holes connecting all of the water-filled levels of the building; the residents simply swim up or down.

16. Mid-Level Caverns

Geography: This area can be reached by the tunnel leading from Area 14, which ends in a long spiral stairway. The stairway descends a full 1,000 feet, and is carefully engineered. Each stair is 10 feet wide, one-foot deep, and drops eight inches. A hollow, 10-foot-diameter shaft plummets straight down the middle of the stairway. There is no guardrail.

The caverns themselves are typical examples of living caves. Several streams flow through them, fed by water seeping from narrow cracks in the walls and ceilings. Cave formations are common. One large central cave dominates the area, although more than a dozen smaller caves surround it. The central cave contains some of the most spectacular drapery formations in all of Deepearth.

To the west, a natural cavern descends steeply into the middle reaches of Deepearth. This cavern is relatively open, averaging about 20 feet in width and half that in height. A small stream splashes through its length. Because of the steepness of its descent, the cavern is broken at many places by cliffs of 1d6 x 10 feet in height. The cliff faces are rough and cracked, with many ledges, so climbing down is not difficult. In two places the cavern narrows to about three feet in diameter.

These caves contain several clear, deep pools of water. Although the largest of these is only 50 feet in diameter, they are commonly 20 to 30 feet deep.

Denizens: Despite the carefully constructed stairway providing access to this area, it should be classified as a wilderness. No organized groups of intelligent creatures live here, although pech, jermalaine, derro, and drow may all be encountered as they pass through the caverns.

A number of monsters have taken up residence here, however, and tend to regard these caverns as their own territory. The large, central cave contains a greater basilisk and a number of mimics. The smaller caves surrounding it contain bowlers, trappers, a xorn, piercers, rock reptiles, scum creepers, and, in one location, mud men.

Resources: The water here is fresh and clean, and the air gets enough circulation to remain breathable, although it is rather stuffy. Many varieties of fungi thrive here, especially near the pools of water.

The same veins of copper and iron ore excavated by the pech

AREA 17: LOWER LAKE

in Area 14 provide access to those mineral ores here. The veins are visible in a number of places, manifesting themselves as streaks of greenish rock (for copper) or reddish rock (for iron). These veins have contributed their colors to the elaborate drapery formations in the central chamber.

Unique Features: A small stream trickles from a crack in the side of the cavern containing the mud men. The stream empties into a wide pool of mud, completely filling the bottom of the cave. Thus, the only access to the side stream is to wade through the fringes of the mud pool. The stream contains water of mild enchantment, and radiates magic if *detect magic* is used—as does the mud pool.

The water acts as a *potion of healing* if drunk from its niche in the wall. It loses all magical properties if any container is used to carry it, even from the streambed to a character's mouth.

17. Lower Lake of Deeparth

Geography: This lake occupies a large, open cavern that is about twelve miles long, and thirteen miles wide at its broadest point. The chamber is about 600 feet high, and the bottom 500 feet are filled with water. Near the center of the ceiling, a constant column of water spills from the drain in the Upper Lake. The water around this column is quite turbulent, but the rest of the lake is rather placid.

The cavern leading here from Area 16 ends in a tunnel mouth 50 feet above the surface of the lake. As elsewhere, the walls of the lake's cavern are cracked and rough, so that climbing them is not difficult. The lake's shoreline is inaccessible; rocky cliffs drop far below the water line on all sides.

To the north, a broad and placid river flows from the lake and slowly meanders through a wide cavern. The river maintains a fairly constant width of about 100 feet, and a depth of $1d10 + 10$ feet. The ceiling of the cavern is always at least 20 feet above the water level, and sometimes soars as much as 50 feet from the water's surface.

The bottom of the lake is smooth rock coated with a few inches of fine silt. A half-dozen underwater caves penetrate the cliffs bordering the lake, but their mouths are all at least 100 feet below the water's surface.

Denizens: The lower lake is the scene of an ongoing struggle between the aboleth and the kuo-toa. Each race maintains outposts in the lake, and savage battles often rage both on the surface and in the depths of the lake.

The kuo-toa have built a domed city near the southern end of the lake. It is very similar to their community in the Upper Lake. The men-fish often travel between the two lakes, and have established a well-worn path leading up to the tunnel mouth near their lair. Occasionally a kuo-toa travels from the Upper Lake to the lower by following the water down the drain, but the inherent risks of this plunge generally convince them to travel overland.

The aboleth have erected their own city at the lake's northern end, and they attempt to exert strict control over creatures using the river to exit or enter the lake. (The city of the aboleth is described below, under Unique Features.) About 300 aboleth occupy the lake dwellings, although nearly half of them may be swimming in other parts of the lake at any given time. A small group of these repulsive beings is on guard at the mouth of the river at all times.

The lake is also host to a number of waterborne fungi and numerous fish upon which other creatures survive. The only other denizen of the lake is given a wide berth by both the aboleth and the kuo-toa: this is a massive kraken that has somehow adapted itself to live in fresh water. The kraken dwells in the largest of the side caverns leading off the lake.

Resources: A constant supply of fresh air finds its way into the cavern through several entrances, and the spout of water from

the ceiling throws out enough turbulence to keep it circulating.

The only mineral resource that could be gleaned from the lake lies on its floor, directly under the waterspout. Here, a vast amount of gold in the form of tiny flakes (or gold dust) has settled after being washed downstream. The total value of this gold exceeds 100,000 gp, but the problems involved in recovering it (namely, the 500-foot depth of the water, the kraken, aboleth, and kuo-toa) make mining here a very risky operation.

Unique Features: Any character following the water through the drain on the floor of the Upper Lake remains submerged for 2d6 rounds. The water eventually bursts through the hole in the ceiling of the Lower Lake and plummets 100 feet straight down. Characters and creatures not native to water will sustain 6d6 of damage from this fall, although this is reduced to half damage if a save vs. breath weapon is successful. Creatures native to water, such as the kuo-toa and aboleth, sustain 3d6 of damage; if their saving throws are successful, they take no damage.

The cavern inhabited by the kraken is the largest of the caves branching off the lake. The entrance tunnel is 40 feet in diameter, and leads into a vast complex of caverns. Some of these are completely water-filled, while others are partially filled with air. The kraken has no less than 50 slaves here, all toiling to expand the caverns for the greater glory of their tyrannical master. A huge pile of tailing stone lies at the bottom of the lake beneath the cavern—a sure sign that major excavation has occurred in the area. The kraken's slaves are an odd mix of human adventurers, drow, duergar, svirfneblin, and even a couple of kuo-toa. The slaves have developed a temporary truce among themselves against the day when they might strike out for freedom.

The city of the aboleth is not attached to any surface, but is designed to have a neutral buoyancy and to float in the water at whatever depth the aboleth desire. Like the bodies of the aboleth themselves, the city is encased in a cloudy mucous. It is shaped like a broad disk, about 1,000 feet in diameter. Six slim towers rise around the outside boundaries, and often these towers are the only portions of the city extending above the surface of the water. The city walls, towers, buildings, and base are made from an unnatural substance that combines many properties of wood, stone, and metal.

A fairly high wall connects the six towers around the circumference of the city. The base of the wall is pierced with a number of drain holes, and a common tactic used by the aboleth is to come up under the enemy. The water trapped in the walls drains away, leaving the victims trapped high and dry in the city of the aboleth.

The buildings of the aboleth city are completely different from any others in the world. Each structure is an almost perfect sphere, and rests on a very narrow base. They resemble balls resting on a slightly soft surface, so that the bottom 10% of the spheres is submerged. The number of entrances is determined by size; smaller buildings (20-30 feet in diameter) have one entrance, and the largest buildings (about 100 feet in diameter) have six. Each entrance is simply a three-foot-diameter hole near the base of the sphere.

The buildings are all single-room structures, filled half with water and half with air. They frequently have ledges that resemble perches about halfway up their interior walls. The smaller buildings are individual lairs, while the larger ones serve as nurseries for the aboleth young or prisons for their many human, drow, pech, derro, and duergar slaves. Each race of slaves is held in a different structure.

The largest buildings are used as halls of government for the Three Clans (each clan has its own building). These buildings contain many ledges up and down their interior walls. Members of the clans perch here when their sessions convene.

The mechanism controlling the buoyancy of the aboleth city is located in the disk that forms the city's foundation. This device is perfectly circular, and about 40 feet thick. While seemingly solid,



AREA 18: STEAM-HEATED CAVERNS

it is in fact riddled by a maze of corridors and machinery rooms. Many sturdy doors close off the various parts of the disk. Most of this area is air-filled, as this is where the city gains much of its positive buoyancy when the controller wishes it to rise.

18. Steam-Heated Caverns

Geography: This large region of natural caverns was formed by water erosion, but its character has since been altered by major subterranean upheavals. Fiery volcanic action in nearby sections of Deepearth created sharp fissures throughout the rock, and some of these cracks in the world tapped into the caverns.

The meandering river from the Lower Lake reaches a cavern about five miles south of the main chambers of this area. This connecting cavern is the source of a rapid stream of relatively hot water that joins the river. The river, at this point, begins to pick up speed as the riverbed starts to descend more steeply. A wide shoreline coated with a beach of fine sand provides an easy landing for boat traffic.

The tunnel containing the hot stream was originally part of the area's natural caverns, but it has been artificially expanded to handle an increased flow of water. Its course has been straightened and its rate of descent increased, so that the hot water races down a veritable chute into the river.

The main area of caverns contains six large caves that are connected by several narrow passages. The air is steamy and hot, and water coats all rock surfaces. Large pools of water fill the low spots in many of the caverns. Their temperatures range from boiling hot to relatively cool. Mildew on most of the rock surfaces makes everything extremely slippery.

A tunnel leading to the north connects with Area 21. This natural cavern is subject to blasts of superheated air about once an hour (2% chance per round, cumulative; i.e., 2% the first round after a blast, 4% the next round, 6% after that, etc.). Characters in the tunnel at the time sustain 4d6 points of damage, although they can save vs. breath weapon for half damage. Of course, normal fire resistance benefits might reduce this damage.

The tunnel leading to the east is the source of the stream that flows out of the area. As the water flows through this area, however, it becomes much hotter. The entire cavern feels very hot, and the water inflicts 4d6 points of damage per round, with saves as above. If characters are only partly immersed in the water, reduce the damage accordingly.

Denizens: As might be expected, this is a favorite haven for creatures who love fire and heat. In Area 21, the connection to the Elemental Plane of Fire has enabled creatures from that infernal place to proliferate.

Efreets, fire elementals, salamanders, and fire bats are all creatures from the Plane of Fire that can be encountered here. While they may be hostile and aggressive, they are far enough from their escape routes that they will not hesitate to flee an encounter that is going badly.

Other creatures, including hell hounds, giant rats, green slime, carrion crawlers, and even megalomorph centipedes, have made these caverns their lairs, and fight with normal tenacity.

The most formidable inhabitants of the area are the fire giants, who hold sway over all the other denizens. Occasionally accompanied by packs of hell hounds, fire giants restlessly roam among the large caverns, bullying the lesser creatures and slaying any who resist. Although they claim the largest cavern as their lair, the fire giants are basically nomadic and may be encountered in any part of this cave network. When assembled, the clan of fire giants numbers over 50 individuals.

Resources: The air in these caverns is muggy and oppressive, and characters unused to the environment become fatigued in half the usual time. Water is plentiful, and food in the form of

fungi is also abundant. No mineral wealth has been located here.

Unique Features: Several of the caverns in the area contain geysers capable of spouting of scalding water and steam every bit as lethal as a red dragon's breath. A pool of water here is 20% likely to be susceptible to geyser activity. In addition, a number of narrow cracks and niches in the rock can issue such deadly blasts. Characters caught in the force of one of these geothermal eruptions sustain 6d6 points of damage, with saving throws vs. breath weapon allowed to reduce damage to 1/2. Fire resistant benefits can further reduce the damage.

19. Chambers of Fire

Geography: These caves are very close to the fiery geothermal heat sources that constantly bake this portion of Deepearth. Although the caves were originally formed by water eroding the natural stone of the area, the small amount of water that now flows into these caves is quickly evaporated by the blistering heat.

The tunnel leading into the Chambers of Fire area was a naturally formed cave that once contained a sizable stream. Heat issuing from fissures in the caves has long since dried up any vestiges of flowing water. The tunnel has been swept clean by frequent blasts of tremendous heat, and is devoid of cave formations. The temperature in the approach tunnel is so hot that creatures not resistant to fire sustain 1d6 points of damage per turn. If characters take protective measures, such as frequently dousing themselves with water, they can avoid this damage.

The caves have formed as a number of large, roughly circular caverns connected by an assortment of artificial and natural tunnels. Each of the large caves is split by a few long, narrow fissures in the floor. These fissures are thousands of feet deep, and often belch out blistering clouds of smoke, poisonous gas, steam, and fire. An eruption of one of these substances (25% chance for any given type) occurs an average of once per hour in each cavern. The eruption lasts for 1d6 rounds.

The average temperature in each of these caves is dangerously hot by human standards. Creatures not resistant to fire suffer 1d6 points of damage per round here. Protective measures such as the water dousing mentioned above reduce this damage to half, but do not eliminate it entirely.

If an eruption from one of the fissures occurs while characters are in the cave, mundane protective measures are to no avail. If steam or fire erupts, characters in the cavern sustain 6d6 points of damage per round, with a saving throw vs. breath weapon reducing this to half damage. If poison gas erupts, a saving throw vs. poison is necessary to avoid death. Smoke eruptions fill the cave for 1d4 turns, with the effects described on page 36.

There is a 50% chance that a given fissure (3d6 feet wide) is bridged in at least one spot by a slender stone arch.

Denizens: Most earthly creatures are unable to survive in the fiery environment of these caverns. Three types of unearthly creatures do reside in the area, however.

Mephits are the most common denizens here, and are represented in all four of their forms: fire, lava, smoke, and steam. Mephits are 50% likely to be encountered immediately following an eruption of the appropriate type. Lava mephits are associated with poisonous gas eruptions for this purpose.

These creatures are generally sent to the Prime Plane to accomplish some fiendish or demonic purpose, although it seems that the mephits frequent this area simply because they like it. Of course, if humans or other earthly creatures are encountered, the mephits cheerfully attack. Only in the remote cavern (described under Unique Features) do these infernal creatures seem to pursue a goal.

Fire bats are also common among these caves. They flap about the area, swooping adroitly into and out of the fissures.

Occasionally, the fire bats extend their flights into the caverns approaching the area, but they do not remain away from their fiery heat sources for long.

The third heat-loving denizens of the area are groups of magmen. Their principal activity is climbing the sheer walls of the fissures from the furnaces below so that they can joyously leap back down, plummeting thousands of feet to splash into the molten rock below. The magmen spend several days making the laborious climb just for the fun of the dive back down. They eagerly attempt to ignite any creatures or unusual objects they encounter while in the caves, not out of maliciousness, but to gratify their other-worldly sense of fun. The magmen would enjoy persuading other creatures to participate in their diving game, but so far they have found no takers.

Resources: This smoky, flaming group of caverns has few resources useful to surface dwellers. Any water that flows into the area is quickly sizzled into steam by the ferocious heat. The air itself is smoky, smells bad, and occasionally becomes poisonous. The caverns do have a series of narrow fissures in their ceilings through which most of the foul air can escape, so enough fresh air flows into the area to make the atmosphere breathable. Mildew has formed in some of the cooler out-of-the-way places here, but this is the only form of plant life in the area.

Unique Features: The largest fissure is located in the area's most remote cavern. It is here that the mephits diligently toil. When eruptions occur from this fissure, 21-40 mephits (1d20 + 20) of the appropriate type enter the cavern with the first shock of the eruption. They aggressively toil to widen the fissure from its current width of 20 feet by chipping away at the walls with an assortment of superhardened metal tools. A number of these tools are lying about the cavern. They resemble small pickaxes with stone handles and metal picks, and are completely impervious to fire.

The mephits delight in attacking any intruders in this area, but instead of killing them outright, they are dragged to the fissure and thrown in as offerings. The mephits are attempting to widen the fissure enough to allow the passage of a monstrously evil creature from one of the dark lower planes. They have been toiling for many years, and will continue to do so until they achieve their goal, or a major catastrophe (earthquake, cave-in, etc.) occurs and seals the fissure.

20. Lava Caves

Geography: The lava caves shown on the map are just a small portion of a huge underground expanse that runs for many miles to the north and east of the map. The cavern displayed is situated much like a balcony overlooking a vast amphitheatre of fire and molten rock.

The tunnel leading to this area is very hot, and has the same potential for causing damage as the tunnel leading to Area 19. Likewise, characters in Area 20 stand about the same chance of sustaining damage as do characters in Area 19. Here, however, the eruptions of smoke, fire, and poison gas are much less common—perhaps one eruption per week.

The cavern itself is a portion of a natural cave that has been split by cataclysmic geological forces. Fully half of the original cave has fallen away because of the encroaching lava. What remains has been baked for centuries by intense heat, so that cave formations are dried and brittle, and all surfaces are coated with a layer of smoky residue. The cavern is still huge, but is dwarfed by the panorama visible to the northeast.

In that direction, the floor of the cave drops off in a 400-foot cliff, with enough cracks and ledges to make climbing possible. This cliff drops away to a sea of lava. A dull red glow illuminates the area with a hellish light, and characters on the cliff can see for many miles over the molten rock. Occasionally, a stony crag juts

from the lava like a forlorn island, and in the far distance several tunnels branch off, carrying the lava to even more remote depths of the earth.

Occasional columns of stone rise from the lava sea all the way to the ceiling, serving to support the massive weight of stone above. In most cases, this stony ceiling is at least 1,000 feet above the surface of the sea, and every day a few chunks of stone and earth break free and tumble into the inferno below. The ceiling is split by a number of fissures that allow heat and smoke to vent upward toward the mountain range on the surface.

The sea-like aspect of the lava is enhanced by the fact that the surface is tossed by a series of swells, much like an ocean's surface. These swells are caused by internal convulsions in the earth, far underneath the surface of the lava. The lava splashes against the rocky cliffs that contain it like an angry sea might lash at its shore.

Denizens: The cavern overlooking the lava sea is guarded by a large outpost of fire giants. As one of the few avenues through which creatures from the outside world can reach the fiery lands of Deepearth, the denizens of the region wish to carefully control who is allowed to travel here.

The fire giant outpost usually holds about 20 individuals accompanied by a dozen hell hounds. At least one giant and one hell hound guard the access tunnel at all times. If any intruders are discovered, the entire force of giants and hounds act to repel them.

Fire-resistant characters bold enough to venture into the lava sea area may encounter many other denizens. Rock islands scattered among the liquid rock serve as lairs for many additional bands of fire giants, as well as numerous groups of lava children. Each island contains only one of these types of denizens, however, with a 50% chance of either race. Although the fire giants and lava children do not usually fight, they prefer to maintain separate lairs.

Great numbers of magmen live in the lava sea. Characters looking down from the balcony cave may see creatures splashing through the molten rock much like porpoises in the ocean. These are the magmen. Occasionally a few of the magmen climb to the balcony cave so that they can dive back down into the lava. The fire giants view this activity with amused tolerance.

Many fire bats dwell in the vast cavern, clinging to the lofty ceiling or soaring through the scorching air as they travel across Deepearth. Para-elementals of magma dwell within the molten rock of the lava sea, and although they are not nearly as common as the magmen, they are much more dangerous. Even the fire giants in their lava boats are not immune to attack from these savage creatures, who form in the hottest areas of the sea and reach upward to attack anyone within reach.

Other creatures encountered here are most likely not denizens so much as would-be conquerors. The elemental vortex described in Area 21 is the source of many creatures from the Elemental Plane of Fire. For obvious reasons, these creatures find the lava sea a pleasant location to visit, and have long attempted to wrest control of the area from the fire giants. Fire elementals, efreeti, salamanders, and allies from the lower planes make occasional forays into the lava sea to wage war against the natural denizens of the area. In these circumstances, the lava children and fire giants join forces against the common enemy. These battles are spectacular affairs, with fleets of lava boats maneuvering across the molten rock, boulders flying through the air, and thousands of creatures locked into mortal conflict. Thus far, the denizens of the lava sea have always been successful in driving off invaders, but each foray has been made with more force than the one before. These invasions occur about once every decade.

Resources: The only real resource of this area is heat, which is difficult to transport to any area where it might be needed.

AREA 21: ELEMENTAL VORTEX OF FIRE

Water is nonexistent; when it leaks into the area, it turns instantly to steam. The air is usually breathable, and fresh air is sucked in through the entrance tunnel with a force capable of blowing out candles and unsheltered lanterns and 50% likely to extinguish a torch.

Unique Features: The fire giants have devised an unusual means of transporting themselves from one island to another: they have sculpted massive granite boats that they row or sail across the surface of the fiery liquid. The boats are often propelled by wide stone paddles, used much like the oars on a galley. Occasionally, however, gusts of air, steam, or other gases sweep across the sea, and then the giants hoist sails to propel their boats. The sails are made of a mysterious cloth, perhaps magically treated, which resists the intense heat. When a forceful gust occurs, it can push the massive boats along at a clip that would do justice to any surface sailing ship.

The lava boats range in length from 80 to 240 feet, with a width of about 20% of the length. Boats longer than 160 feet are equipped with a pair of masts, while the shorter boats have only single masts. In appearance they resemble a clumsy version of a Viking longship. Each boat has one pair of oars for every 40 feet of length. A stone tiller in the stern aids in steering.

On a large island several miles from the balcony cave, the fire giant king resides. The entire island has been tunneled and carved so that it resembles a massive castle. Tall towers rise from many points along its rocky surface, and a high wall meets the lava on all sides of the island except one. Here, a breach opens into a lava-filled harbor where the fire giants moor their boats against stone docks and gain entrance to the towering castle. The harbor entrance is only 120 feet wide, and is protected on each flank by a high tower manned by a dozen fire giants with a large supply of boulders to hurl at unwelcome intruders.

21. Elemental Vortex of Fire

Geography: This region can be reached by crossing the lava sea, or through the tunnel from Area 18. Like the neighboring regions, it is uncomfortably hot here and characters approaching through the tunnel run the same damage risks as they do in the other linking passages of the area.

The tunnel eventually ends in a huge cavern, 1,000 feet in diameter and 300 feet high. The cavern was formed naturally, but tremendous heat has long since dried and rotted once-fabulous cave formations. The heat here has the same effect on characters as that in Areas 19 and 20.

The floor of the cavern is smooth and flat, except for the very center. There, a perfectly circular hole that is 100 feet across drops to the unknown depths below. Red and orange fingers of flame flicker around the circumference of the hole, occasionally flaring up as high as the cavern's ceiling.

The hole appears to be truly bottomless. The sides swirl around in a hypnotic pattern, and any character staring down the hole for more than a single round must make a Wisdom Check. If the check fails, the character is compelled to jump into the hole and journey to the Plane of Fire (see Unique Features).

The cavern has no entrances or exits other than the tunnel from Area 18 and the hole in the floor.

The hole in the floor is not a pit leading to the lava sea, although that body of lava flows underneath this area. Instead, through tremendous heat, pressure, and arcane force, the hole has become a vortex to the Plane of Fire. Through it, creatures from that fiery region can journey to the Prime Material Plane without being summoned. Likewise, properly protected creatures from the Prime Plane can journey to the Plane of Fire by entering the vortex.

Denizens: The only denizens of this chamber are those that have journeyed here from the Plane of Fire. Fortunately for the

Prime Plane, these creatures do not journey far from their fiery home.

The fingers of fire flickering around the edges of the vortex contain 1d6 fire elementals, each of a randomly determined size. The fire elementals remain in or very near the vortex, but combine forces to prevent any creatures from the Prime Plane from entering it.

There is an additional 50% chance that 1d6 of the following creatures immediately emerge from the vortex to battle any invaders: efreeti, salamanders, azers, fire bats, and elemental grue. Check for these reinforcements on the first round contact is made, and every other round thereafter (i.e., third, fifth, seventh, etc.).

Resources: There is a minimum amount of breathable air in the chamber, and that is hot, dry, and sulphurous. Little else of value can be found here.

Unique Features: Any creatures entering the vortex who are not completely immune to fire suffer 8d8 of damage per round. Because it is an extraplanar location, the vortex is not subject to the normal effects of gravity. Anything entering it descends as if under the effects of a *feather fall* spell. Magic such as *levitation* or *fly* spells allows a character to reverse course and emerge from the vortex if cast within the five rounds of entering.

After this, the character is committed to a journey to the Plane of Fire. The entire passage requires 10 rounds, after which the character finds himself on a bleak and volcanic landscape with eruptions, geysers, and flowing lava on all sides. The vortex is evident directly behind the character, appearing as a chute leading into the depths of a large volcano.

The vortex actually has two connections to the Prime Plane in roughly the same area. Anyone re-entering the vortex has a 50% chance of emerging in Area 21, and a 50% chance of emerging in the lava sea. The vortex to the lava sea is directly below the one in Area 21, and appears to be a giant whirlpool of molten rock. Any lava boats venturing within 500 feet of the whirlpool are drawn in as if in water. This lower vortex is the source of the elemental armies that occasionally journey here to attack the fire giants and lava children.

22. Lands of the Deep Gnomes

Geography: This extensive region of natural caverns comprises numerous long, narrow caverns, all running north to south. These caverns run side by side, but also above and below each other, creating three distinct levels.

The caves average 20 feet wide and 10 feet high, but in many places become much narrower than that. At least once each mile travelers encounter a short passage only two or three feet in diameter. Streams flow through most of the caves, but never completely fill the passages. In areas where they come close to choking off entire tunnels, the svirfneblin have constructed upper passages so that a gnome-sized character can walk anywhere in these caves without getting wet feet.

The passages establishing vertical connections between the caves have all been crafted by the deep gnomes with small spiral stairways or ladders. Although many of these places are tight squeezes for human characters, none are too small for humans to force their way through.

Many small tunnels have been excavated in the sides of these caves to serve as homes for the svirfneblin. These range from tiny burrows, too small for a human to enter, to large multi-family residences or council centers into which a human could crawl and stand erect once inside.

Denizens: Each cave in this area is the home of a single clan of the deep gnomes. The most prestigious clans have the largest caves. Each clan maintains its own council chamber, which is an excavated chamber about 60 feet in diameter and eight feet high.

The gnomes cooperate well with each other and have established a clan meeting chamber in a central cave, surrounded by the residences of the most powerful clans. This huge chamber is 200 feet in diameter, although the ceiling is only 10 feet from the floor and has numerous columns supporting it.

The total population of svirfneblin numbers close to 5,000. About 1/3 of this population is able to mobilize for military purposes. This makes them a force to be reckoned with in Deepearth.

Living in the same caverns as the svirfneblin are many herds of rothe. The deep gnomes protect them from the more savage predators of Deepearth, and find many uses for their woolly hair and tasty meat. Each clan of svirfneblin keeps at least 100 rothe, with larger herds numbering eight or 10 times as many beasts. The deep gnomes practice selective breeding, and thus insure a healthy and prolific livestock supply.

Resources: Fresh water trickles steadily into these caverns through many small cracks in the walls and ceilings. No single watercourse is large enough to be called a stream, but the trickles combine to create the equivalent of a small stream in each cave. In a few places the water gathers in large, still pools.

The caverns at the southern end of the deep gnomes' domain gain the benefit of air circulation through the Grand Canyon of Deepearth, and this fresh air circulates enough to provide all of the caverns with an ample supply.

Plant life is represented by the edible fungi that grow throughout the area.

The tunnels branching off from the northeast end of the deep gnomes' domain are mines. These ever-growing shafts are sources of iron, silver, copper, and lead. An extensive network of mine tunnels extends deep into the earth, as well as horizontally to the north and east. Many of these shafts are over five miles long, and have yielded their valuable contents to the industrious gnomes for generations.

Unique Features: A vast cavern connects the gnomes' dwellings with their mining tunnels, and this cavern is the location of a huge smelter and smithy. Massive amounts of coal are needed to feed the roaring fires. Exhaust smoke is vented through cracks in the bedrock, eventually spilling into the huge caverns of the lava sea where it harmlessly disperses.

In the smithy, svirfneblin blacksmiths, weaponsmiths, and armorers toil endlessly to create high-quality weapons, armor, and tools. They have, in fact, created many more of these implements than they need. Some of the surplus is traded with other cultures and the rest is stockpiled. A huge stone door blocks off a large vault that contains not only the excess products of the smiths, but thousands of bars of silver worth 500 sp apiece. The stone door slides along a grooved track in the floor, and requires a combined Strength of 550 to open. The gnomes pull it aside about once a week, using a work team composed of hundreds of deep gnomes and a complicated system of winches and pulleys. A number of *illusions* conceal the vault's entrance.

23. Lower Grand Canyon of Deepearth

Geography: This is the lower portion of the Grand Canyon of Deepearth (Area 7). The canyon walls descend another 1,200 feet from this point, but the canyon is bridged between Areas 22 and 24. Both the domains of the deep gnomes and the duergar (Area 24) reach to the canyon itself, and on each side the demihumans have carved vast galleries capable of holding a thousand or more spectators. These galleries face each other across the 1,000-foot width of the canyon.

A sturdy stone bridge about 20 feet wide stretches between the two galleries. Below this bridge, in full view of both galleries, is a three-dimensional web of stone arches, metal girders, rope ladders, and nets. This is an arena of subterranean competition (see Unique Features).



AREA 24: DOMAIN OF THE DUERGAR

Denizens and Resources are as explained under Area 7. Note that svirfneblin and duergar war parties constantly watch each other across the canyon.

Unique Features: The arena is a treacherous structure upon which most conflicts among the duergar and deep gnomes (as well as interracial fights) are resolved. The tragic and costly wars of the past have convinced these demi-humans that it is far better to appoint a champion from each faction and to have the champions fight to the death, rather than risk the devastation of war.

The champions carry an assortment of nonmissile weapons onto the girders, and fight to the death. In some cases, the conflict may be resolved before this happens, but when a duergar and svirfneblin duel, the conflict always results in a fatality. The three-dimensional nature of the arena allows for a unique form of combat in which opponents maneuver for height, positions of security, and openings for attacks. The girders and beams are spaced far enough apart that the small warriors often have difficulty reaching each other. Humans and larger creatures have an easier time moving through the arena.

24. Domain of the Duergar

Geography: This large network of caverns is the home of the largest concentration of gray dwarves, or duergar, in Deepearth. Like the lairs of the svirfneblin, these caves are all of natural origin, although the duergar have widened some passages and built stairways. Nearly a hundred caves make up the domain of the duergar.

These are living caves that contain plentiful supplies of fresh, flowing water. Several of the caves are almost completely filled with water, although even these have small air spaces near the top with ledged walkways so that the gray dwarves can move through them. These caves have been dammed to control outflow so that the dwarves maintain a large water supply even during periods of drought.

Like the caves of the deep gnomes, the duergar caves contain large central open areas with extensive networks of dungeons and tunnels excavated for living quarters along the sides. The duergar also maintain a large central cavern where they have established a council chamber.

The tunnel leading east serves as the outflow for most of the water flowing through the area. The stream in the tunnel is about 30 feet wide and is navigable by small boats. A dry walkway runs through the tunnel beside the stream, allowing unimpeded travel by foot as well.

Denizens: The duergar are the main inhabitants of the area, and number about 8,000. Their caves are beehives of activity as the diminutive demi-humans go about their business. Like the svirfneblin, the gray dwarves maintain large herds of rothe.

In several small caves attached to this network, the gray dwarves allow small communities of derro to live. Although the derro are treated as second-class citizens, they tolerate this arrangement in order to gain the protection offered by the huge duergar population.

Hundreds of slaves are imprisoned in small, poorly-ventilated caverns among the dwellings of the duergar. These slaves include humans, goblins, svirfneblin, and drow. Although they are demoralized and listless, there is a 25% chance that a given group of them might be persuaded to join in an escape attempt.

Many giant bats live in niches among the ceilings of the duergar caverns. The duergar have done everything in their power to eliminate these pests, but they remain. The bats' favorite prey is the rothe, but they do not hesitate to seize a duergar, derro, or slave if the opportunity arises.

Resources: The water supply is steady here, but even if it were not, the reservoir caverns contain enough water to last the gray dwarves for several years. The caverns' proximity to the

Grand Canyon insures an adequate air supply, and the duergar have cut many air ducts through the rocks to aid in air circulation.

At the southwestern end of their domain, the duergar have established an ambitious mining operation. Like the svirfneblin mines, these mines consist of a three-dimensional network of shafts and tunnels that extends for many miles. The duergar mine iron, copper, and gold. Their mines are worked almost exclusively by slaves.

Unique Features: The duergar have developed the state of metal-working to a fine art; their tools, weapons, and armor are all of the highest quality. They do not use gold for such mundane purposes, however; instead they have developed a cadre of highly skilled gold sculptors. The sculptors use stone to create models of many statues and these stone models are used to make molds. Finally, the molds are filled with pure, molten gold to create exquisite and extremely valuable works of art worth.

An average duergar residence contains 1d6 x 100 gp worth of small statuary. Larger residences may have up to six times this value. In public areas such as the council chambers or inns, the value of gold sculptures is 2d6 x 1,000 gp. The largest chamber holds life-size solid gold statues of many prominent figures from the race's past. Each of these contains about 20,000 gp worth of gold. These values are for the gold content of the statues only; if the piece is returned to the surface intact, its worth is 1d4 + 1 times as much as its gold content. Like the deep gnomes, the duergar trade their products with neighboring cultures.

The duergar have also developed breweries that use a red fungus rather than grain as a raw material. The result is a pungent and potent ale that is a common drink among the gray dwarves. Hence, each cavern has at least one or two side caves hollowed out as inns, and these are well-attended at all times.

25. Windpipe

Geography: Several large caverns provide alternative routes through this area. The caves join together at their northern extremities, where they connect to the huge, excavated chamber that contains the windpipe (see Unique Features). The six caves leading to the windpipe are living caves with many spectacular formations. Each includes a vast central chamber, 80 feet high or higher and several miles long. Much narrower connecting passages link these caves to the excavated tunnel leading to Area 26, and to the circular chamber containing the windpipe.

Denizens: A large outpost of drow live in the chamber of the windpipe, and patrols of the dark elves are common in the connecting caves. Because the windpipe allows access to their realms below, the drow selected to man this outpost are of high level and morale. All dark elves encountered in the area are fighters of 4th level or higher, with a magic-user and cleric of 5th level or higher. If the drow encounter a party they can easily overpower, they try to take prisoners to work as slaves.

Despite the drow patrols, the caverns host a wide variety of other creatures. Doombats lair among the stalactites clustering the ceilings, as do a few piercers. Oozes, jellies, and slimes abound among the small pools of water, and clusters of lichens fill the cavern floors. Basidiroids nestle among clusters of harmless fungus. Many a giant rat or carrion crawler moves from cave to cave, restlessly seeking prey.

Resources: The pools of water here are subject to infrequent flowage, and about 50% of them have been polluted by noxious creatures or their droppings. Each of the six large caves has at least one or two sources of pure water, however.

The outflow of air from the windpipe is sufficient to maintain an ample supply of oxygen here. No mineral wealth has been unearthed.

Unique Features: The windpipe is a smooth shaft through the earth. It is about 20 feet wide and stretches from the lowest

realms of Deepearth to a high mountain crevasse some 20 miles distant. The windpipe is subject to alternating blasts of air that blow up from the depths and then back down. It accounts for most of the ventilation in the realms of the drow, and also serves as a means of transportation.

For approximately one turn per hour, the windpipe fills the surrounding caverns with a roaring sound as air blasts upward from the heart of Deepearth. During these spurts, a character can step into the shaft, lie down, and be propelled upward by the force of the air. The character can slow or reverse his climb by changing his orientation. Thus, a character standing upright falls at a rapid speed.

The windpipe is inactive for about four turns per hour, and carries a downward blast of air for another turn. Neither of these conditions is suitable for transportation. The exact timing between blasts is a matter of guesswork and luck, since it varies as much as 50%. The journey from Area 25 to Area 28 takes five rounds and the reverse takes eight rounds, so bad timing (and fatalities) is not unheard of.

The drow have become skilled at using the airflow to pass between Areas 28 and 25. The trip requires careful timing in order to slow the change in altitude at the proper time, and characters new to the experience must make successful Intelligence Checks in order to stop correctly. For characters traveling upward, failure simply means that they must reverse course. Failure to halt downward movement results in falling damage of 6d6 points.

In Area 25, the windpipe entry is a door-sized opening in the side of the shaft.

26. Hallowed Grounds

Geography: This multitude of natural caverns includes some of the largest chambers in all of Deepearth. Soaring ceilings reach 1,000 feet or more above the floors, and caverns over a mile wide and a dozen miles long are common. Many cavern floors are cut by deep, wide gorges, several of which have been bridged. Numerous excavated tunnels lead off to the sides of the caverns, and in some places fortifications and the ruins of large cities are evident.

Several streams provide the area's water supply and some of the caverns contain small, deep lakes. Although the caves once contained many elegant formations, they now have a barren and beaten look. Stalactites and stalagmites have been broken, and many of the bridges have collapsed. The debris of battle lies everywhere—broken weapons, shattered war machines, and thousands upon thousands of skeletons.

Denizens: Nothing lives here anymore, although it is obvious that these caverns were once highly prized by a number of races. The skeletons include those of drow, duergar, svirfneblin, and derro. In fact, other subterranean creatures who left no skeletons—pech, cloaklers, and illithids—also fought and died for control of these caverns.

Although intruders do not encounter living things here, there is still danger. The spirits of the fallen warriors wish their battle-grounds to remain sacrosanct, and rise up to oppose those who tread there. Wights, wraiths, spectres, ghosts, and skeletons marshal their forces to attack trespassers. Each of the huge caverns contains a single lich that commands the many undead.

Resources: Air and water are plentiful, but food is unavailable unless characters carry it with them.

Unique Features: Each lich presides over a collection of the valuables that undead minions have harvested from the battlefields. The undead have had centuries to perform this task, and have done it very well. Consequently, characters searching the battlefields find nothing but broken weapons, useless armor, and other wreckage.

Each lich has selected the ruin of a once-vast city or fortification as its lair and treasure house. Each of these contains thousands of normal weapons, mundane pieces of armor, and even war machines. In addition, each treasure house contains a small fortune in coins, gems, and jewelry plucked from the dead, and a wide variety of magical items useful in battle. These include weapons, armor, scrolls, rings, potions, wands, rods, and miscellaneous items beyond measure. Each treasure house is guarded by a veritable army of undead, commanded by a lich of 18-27th level (17+1d10). Twenty percent of the liches are magic user/clerics and the other 80% are only magic-users.

27. The Melting Pot

Geography: In contrast to the neighboring area, this realm features many small caverns connected by an intricate maze of tunnels and caverns of both natural and artificial origin. The caves receive an ample amount of water, and thus the many formations retain a great deal of lustre.

Denizens: The caverns here provide dwellings for most types of intelligent creatures known to Deepearth. Each race has secured a small niche of 1d12 caves, and necessity has insured that each group is prepared to vigorously pursue its own defense.

Populations of drow, duergar, pech, derro, cloaklers, myconids, umber hulks, and even kuo-toa live here. Although each group has made an effort to excavate and expand their dwellings, most construction efforts go to strengthening defenses, constructing traps, and training individuals for war.

Many of these races keep herds of rothe and raise large plots of edible fungus for sustenance. All creatures of the area agree that water sources are sacred and cannot be polluted or poisoned in the cause of war.

Resources: Many mineral resources were once available throughout this realm, but nearly all such veins have been exhausted. The creatures here have learned to use wisely what raw materials they can find.

Unique Features: The long history of creatures crowded into these caves has made a mark, especially in the form of secret passages and connecting tunnels. Because so many different races vie for control of strategic routes and crossroads, inhabitants make a practice of tunneling around areas that get in their way. Consequently, there are many possible routes from one location to another, although these are often masked behind secret or concealed entrances.

28. Realm of the Drow

Geography: This vast realm contains many excavated caverns that link a number of large living caves. The area is the high point of drow culture in Deepearth.

Central to the drow realm is a perfectly circular chamber that has been laboriously hollowed out from the rock. It is over a mile in diameter, and the ceiling rises to a dome 1,000 feet from the floor. Many massive columns support the dome. In its center, a vertical shaft through the ceiling leads to the matriarchs' council hall. It is accessible only by flight or *levitation*.

Drow dwellings are located throughout the hundreds of linking caverns in the area. The drow cities, towns, and villages are unlike those of the duergar or svirfneblin; instead of living in side tunnels bored through the walls of large caverns, the drow erect buildings in the caverns. If not for the encompassing darkness and looming ceilings overhead, these communities would resemble the communities of surface dwellers.

Water flows plentifully here, and the drow have created huge reservoirs in several places. Wide, placid waterways connect many of the caverns, and boat travel is nearly as common here as walking.



The realm of the drow includes caverns on many different levels, but all of the connecting passages have been meticulously sculpted. Elegant spiral stairways circle around shafts in the rock, and occasionally miniature versions of the matriarchs' council chamber allow access only to drow of 4th level or higher, since that is the level at which *levitation* ability becomes universal. In times of dire emergency, rope ladders can be used to lift the rest of the population into these refuges, which are virtually impervious to attack.

Denizens: The drow leave no doubt as to their complete mastery of their realm. More than 12,000 of them live here, along with the rothe and cave pigs they raise for food and wool. Although a few rats and bats also dwell here, other monsters are as rare as they would be in the streets of a bustling city on the surface.

Resources: The bottom access tunnel to the windpipe provides a steady flow of fresh air. The drow do not understand exactly what causes the massive air flow, but their sages postulate that small fluctuations in the earth's crust cause great changes in the air pressure in the narrow shaft.

Water is abundant, and the drow keep their water sources clean with meticulous dedication. Many large caverns are devoted exclusively to fungus growing, and this food supply is capable of feeding the populace with a slight surplus. Population is strictly controlled, with imperfect babies ruthlessly killed at birth.

The drow also work a series of mines from which they draw the minerals needed to perform their complex metalworking. Iron, copper, silver, gold, and occasional finds of adamantite and mithril provide them with a steady supply of raw material.

Unique Features: The drow cities are marvels of subterranean architecture. Their soaring columns, elegant buttresses, and huge domes create a bizarre, yet beautiful, spectacle. Although they despise sunlight, the drow employ numerous phosphorescent fungi among their dwellings, for the purpose of displaying the architecture.

All buildings consist primarily of stone that is expertly sculpted for smooth lines and a clean look. Occasionally, prominent offices or dwellings of the wealthy are embellished with gold and silver ornamentations. Such metal is never structurally essential; it is used only to enhance a building's appearance.

29. The Dark Realms

Geography: This is a region of living caves. A map of the area would resemble a spiderweb, with all of the peripheral caves leading down toward a huge cavern in the center. While enough water trickles through these caves to add lustre to the cave formations, it does not gather sufficient volume to float even a kayak. Instead, the water is generally encountered in the form of thick, cold mud.

The central chamber has access to no less than 12 connecting passages, each of which carries a slow trickle of mud. The chamber itself contains a monstrous reservoir of thick mud, measuring some 300 feet deep and nearly a mile across. Even though it continually flows into the chamber, the mud level has remained constant for centuries.

Denizens: Several intelligent races have staked out their realms in different portions of these dark chambers. The alien culture of the cloaklers, once prolific throughout Deepearth, has been driven into a narrow region of a few dozen caverns. The mind flayers hold more territory, and roughly a third of this entire region falls under their evil dominion. Several small communities of derro hold sway over localized caverns that are always well defended.

There are many monsters here—virtually every creature of darkness is represented. Since many of the caverns making up the Dark Realms are not claimed by any intelligent race, they

have become the domains of slimes, oozes, jellies, animated fungi, scavengers, and all the other unintelligent creatures that prowl the Underdark in search of prey.

A hundred or more denizens of the Plane of Earth cluster near the center of the Dark Realms, where their escape route is always near (see *Unique Features*). Earth elementals are the most numerous, but xorn, crysmal, galeb duhr, chaggrin, and dao may also be encountered in the area. These earth creatures unite to defend against any threat to the vortex leading to their plane.

Resources: The air in the Dark Realms is generally stale and foul-smelling. While the water supply is sufficient to keep the air humid, and to provide drinking water for creatures not particular about its quality, it could not support a community of more humanoid inhabitants.

There is a great deal of mineral wealth here, nearly all of it unexploited. While the areas around the vortex have been thoroughly scavenged by the creatures from the Plane of Earth (particularly the crysmal), the rest of the Dark Realms offers a wide variety of gems and precious metals for the intrepid miner. The deadly hazards that abound in the region are enough to forestall almost any mining operation, however.

Unique Features: A creature flying over the center of the mud-lake can see that the mud spins in a deliberate fashion, like a watery whirlpool in slow motion. This whirlpool marks the location of an elemental vortex to the Plane of Earth, very similar to the connection to the Plane of Fire described in Area 21. Mud slowly seeps through the vortex at just the correct pace to match the mud flowing into the chamber.

Moving from the Prime Plane to the Plane of Earth requires the same procedure as a journey to the Plane of Fire described under Area 21. Characters making this journey do not take heat damage, of course, but must hold their breath or carry a supply of breathable air for the time spent in transit.

30. Interplanar Whirlpool

Geography: The placid river flowing from Area 17 gradually picks up speed until it reaches the shaft shown on the map. Here it plunges 2,000 feet straight down, finally splashing into the deep subterranean lake that makes up Area 30. The shaft the water plunges down is 100 feet in diameter. Just before the water plunges over the fall, it passes a sturdy breakwater and landing. At this point, travelers can remove boats from the water and walk along a wide trail that follows the river into the shaft. The trail becomes a long series of wide stairs cut into the rock opposite the waterfall, and the stairs switchback down the entire length of the shaft. At the bottom, they terminate in another landing adjacent to the lake.

The lake itself fills many adjoining caverns. Some of them are completely filled, making boat travel impossible, but in most areas the ceiling rises 20 feet or more from the surface of the lake. A wide, placid river slowly makes its way out of the lake to the south, and a more aggressive current carries water into a large cavern to the north of the lake, where the whirlpool is located.

The lake's depth varies from cavern to cavern, but it is rarely shallower than 100 feet. In some places, the bottom is 1,000 feet below the surface.

Denizens: As might be expected, both the kuo-toa and the aboleth wander these caves, although neither race maintains dwellings here. They are often on the watch for intruders from the Plane of Water, who gain access to the Prime Plane through the whirlpool.

A number of monsters roam the deep waters of these caverns, using the wide river leading to Area 31 as a means of infesting that area as well. These aquatic carnivores include giant catfish, giant gar, scrags (marine trolls), lampreys, merrow (aquatic

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ogres), giant sea snapping turtles, and giant pike. The marine trolls and ogres maintain lairs in small caverns along the sides of the lake, while the other monsters constantly roam about in search of prey.

A small group of nymphs resides in these caverns. They live in caves half-filled with water, very close to the waterfall that spills into this area. They jealously guard against intrusion and strive constantly to keep the water pure.

The large cavern containing the interplanar whirlpool is claimed by a host of creatures from the Elemental Plane of Water. An assortment of nereid perpetually guards the approaches to the cave. If intruders approach, some of the nereid attempt to keep them at bay while others hasten to their own plane to return with reinforcements. These arrive three turns after the intrusion is discovered.

Creatures from the Plane of Water who answer the nereids' calls for help include water elementals, water weirds, tritons, var-dig, and marid. Unless the incursion is a major one, only one or two types of these creatures respond at a given time.

Resources: The water is clean and plentiful. The air does not circulate well, but few of the creatures here breathe it, so characters have no shortage. The caves of the ogres and trolls contain limited amounts of treasure, but little else of value can be found here.

Unique Features: The whirlpool cavern is an elemental vortex like the mud and lava vortices in Areas 29 and 21. Characters must be able to breathe water in order to survive a journey to the Plane of Water. In addition, the guardians from that plane must either be defeated or persuaded that the characters serve a cause that they support. A few of these creatures, such as tritons, lean towards good alignment.

31. Darksea

Geography: The portion of the Darksea shown on the map represents only a small fraction of the total area occupied by this huge body of water. The exact extent of the Darksea is unknown, but it is safe to assume that its waters reach a hundred miles or more to the south and east of the area displayed.

The waters of the Darksea are mildly salty, but not as salty as seawater on the surface. In many places the ceiling of the chamber rises far above the water level, occasionally by as much as 1,000 feet. In other places the ceiling drops to the water level or below, blocking off huge sections of the sea to all but underwater travelers.

Small portions of the sea's shoreline include stretches of smooth rock that gradually slopes into the water. Here boats can be pulled onto shore and creatures can clamber ashore. Most of the shore is lined with vertical stone cliffs that plummet from the ceiling deep into the sea, however, and the only way out of the water in these places is a vertical climb.

The water varies in depth, but can only be considered shallow near the infrequent shorelines mentioned above. In other places, the sea bottom falls hundreds of feet from the surface. At its deepest, the bottom of the Darksea is 2,000 feet below the water's surface.

Denizens: The dominant denizens of the Darksea are the aboleth. A dozen or more of their massive, buoyant cities drift slowly around in the black waters, and parties of aboleth commonly travel about the sea. They are always eager to gain more slaves for their cities and more prey for their sinister rituals.

In addition, the many creatures listed in Area 30 as travelers between that region and the Darksea are encountered here. Some creatures are unique to the Darksea, however. These include giant squid, water nagas, verme, and the hideously evil morkoth.

Other types of aquatic denizens include subterranean varieties of many ocean predators, such as sharks, barracudas, rays, and even dragon turtles and sea snakes.

Small groups of kuo-toa are occasionally encountered here as well, but the men-fish are engaged in a losing war with the aboleth for total control of the Darksea. It seems evident that, within a few centuries, the kuo-toan presence in the Darksea will be a thing of the past.

Resources: The Darksea holds the rich variety of resources typical of many seas and oceans on the surface. Although kelp and plankton cannot grow without sunlight, many varieties of aquatic fungi have developed here. Some of these float upon the water, looking much like mushrooms, while smaller varieties resemble clouds of molds floating at all depths in the water.

Many fish (including some of the monsters listed above) thrive on these fungi. The Darksea also hosts subterranean varieties of many common surface fish such as perch, trout, and salmon. These fish fall prey to the thriving varieties of carnivores that swarm in the waters of the Darksea.

Unique Features: The cities of the aboleth float through the Darksea much like their city floats in the Great Lake of Deepearth (Area 17). One of the cities in the Darksea is the center of aboleth culture, however, and is about three times the size of the others. The capital city is encircled by 36 towers, instead of the usual six, and is in all ways more grandiose than the other aboleth cities.



UNDERGROUND ADVENTURES: CAMPAIGN CONSIDERATIONS

The ingredients of a successful campaign are myriad, and an attempt to list them all is doomed to failure. Even the most experienced DM, however, can benefit from the experiences of other Dungeon Masters and other campaigns. This section presents some ideas for creating and running a successful campaign—ideas that have worked for many a referee.

The most important ingredient in any campaign is a skilled DM who has the time and energy to carefully define and create his world, and the talent to communicate his settings effectively. The next most important ingredients are willing players who share common goals with the DM. Players interested in hack-and-slash adventures should not be matched a DM who is interested in careful plot structuring and detailed mystery solving.

Most players fit into one of three general types: Adventurers, Problem Solvers, or Role-Players. Each type of party enjoys the game, but looks for certain characteristics that do not necessarily appeal to other types of gamers.

Adventurers: These are the bright-eyed, enthusiastic players that most of us were when we first played the game. Many players retain an interest in this type of game throughout their gaming careers.

For Adventurers, the high points of a gaming session come from physical challenges that their character abilities allow them to overcome. These players enjoy combat above all other types of gaming activities, and thus prefer adventures where the obstacles are physical and dangerous, and must be overcome by force.

Such players judge their characters more on how many magical bonuses their characters can bring to bear in combat than on any deep moral or philosophical concerns. Characters who are slain can be replaced quickly, although players are undoubtedly disappointed about losing all the fine magical items their slain characters had accumulated.

This class of gamer is undoubtedly the easiest to DM for, because their needs are so easily met. A few monsters of increasing toughness, as long as most of them have hoarded enough treasure to make the adventure worthwhile, are all it takes to entertain this group for weeks on end. Their characters are usually motivated to enter a dungeon simply by the prospect of treasure to plunder, so the DM does not need to devise complicated motivations and plot devices to compel them to go where he wants.

Even experienced gamers who generally play adventures in the other categories occasionally enjoy a return to the Adventurer style of play. This type of play remains interesting and fresh if the DM uses a little inventiveness. Use clever tactics for monsters, and play them intelligently. Try new variations on existing monsters, such as adding poison or magic use to creatures that the PCs usually overcome easily. Monsters that have been wronged should seek retribution.

Try to vary your approaches to hiding treasures, and limit the number of magical items you allow in the campaign. Potent magical items should have odd twists and restrictions, such as a limited number of charges, or the ability to work only in a particular environment (in bright sunlight or in total darkness, for example). Ensure that PCs do not succeed at major encounters unless they use careful planning, and make recovering slain characters diffi-

cult. By the same token, avoid instant death situations. Drama and tension are increased if a character has several chances to avoid a terrible fate.

Problem-Solvers: These players enjoy the game on a different level than Adventurers. Problem-Solvers see the campaign as a great puzzle, and their purpose is to put all of the pieces together.

For these characters, the story itself becomes very important. The more twisted and convoluted the plot, the better. Battles are interesting only from the standpoint of the tactical problems they present. Problem-Solvers often go to great lengths to concoct imaginative and occasionally workable plans to deal with every eventuality.

Problem-Solvers also tend to be very creative with the rules of the game, so a successful game requires a DM who is creative and consistent. These players often try to devise new equipment and magical items. They are extremely enthusiastic about gaming sessions that offer something unique and challenging, and quickly tire of campaigns that become routine.

Problem-Solvers are tough to referee because they get bored with anything that does not seem new. Since the party requires mental challenge to remain interested in the game, the DM must come up with appropriate adventures: hard enough to be challenging, but easy enough to be solved with sufficient effort.

Don't hesitate to borrow tricks, traps, and encounter ideas from books and other sources. Provide your PCs with motivating backgrounds, and let the players come up with their own objectives. Use incidents such as random encounters to present mysteries and clues to the players. Define your NPCs with care, and provide them with motivations.

Problem-Solvers often relish nothing so much as a story line that presents a mystery to be solved. They eagerly seek clues and assemble plot elements as if they are truly putting together a puzzle. Players may spend much time debating various courses of action, and often these debates are great fun for all concerned.

Role-Players: Many of us have fit into this category at some point in our gaming careers. Role-Players really enjoy creating every detail of their character's lives, down to ancestry and minor possessions. Role-Players are not satisfied with being told that their party has acquired the necessary equipment for an expedition at the general store. Instead, these players want to role play the whole shopping experience, and enjoy haggling over copper pieces with the poor shopkeeper (and his DM stand-in).

Role-Players view adventures as opportunities for their player characters to grow. These characters may be developed to a level of almost painful detail. Role-Players almost always include one or more faults among their PCs' characteristics, since this adds to the characters' believability.

Each PC's personality is important. Players are interested in their character's motivations, and try to react to circumstances as their characters would. Role-Players enjoy interaction, both with NPCs and with other PCs. They often try to talk their way out of problems that other players might solve with brute force.

Since Role-Players view their player characters as the sole reason for playing, the motivation for the adventure must be something that is important to these characters. This is generally not hard for the DM to devise. A character with very important family

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ties, for example, can easily be encouraged to participate in an adventure if the family name can be hoisted to greater glory by his exploits—or, conversely, saved from a terrible dragging through the mud.

Anything that affects things the characters value is enough to send them into the dungeon. Characters who have been held prisoner, scarred, or otherwise harmed, can easily be motivated to participate in an adventure where vengeance is a motivation. The old plot device of rescuing a kidnapped prince, princess, etc., always draws these characters into an adventure if the victim is someone close to them.

Challenges for the DM

It should not be difficult for a DM to determine where his players fit among these three categories. While most players represent a blend of the three types, with emphasis in one area, the categories are useful for determining the general thrust of your game. A successful campaign must provide challenges for all three types of players.

The Fine Art of Juggling

Once you have determined what types of players you have, it becomes your task to see that each type of player in your campaign has fun. If all of the players are Adventurers, create a series of challenging and exciting action encounters with appropriate levels of reward. If all of the players are Role-Players, populate your dungeons with interesting NPCs and provide opportunities for interaction.

If your players include more than one of these basic types, however, you need to do some juggling to make sure that each player is entertained. The key to successful juggling is feedback.

Feedback is information you gain about your players by watching and listening to them. It is not hard to notice when a player is bored or overly frustrated, simply by observing facial expressions. These observations can be made while you are running the adventure—and are an important part of a DM's job.

If you notice that Adventurers are getting restless while the Role-Players are thoroughly enjoying a chance meeting with a group of pilgrims, perhaps it is time for a random encounter. You could also challenge the Problem-Solvers in the party with the same encounter—perhaps a group of bandits attack, and as the last one expires he murmurs an obscure clue to a mystery that the party has been working on. Alternatively, Problem-Solvers might observe something unusual during the encounter, or discover something significant through a search.

When running a game, try to make it a point to talk to each player every few minutes. Listen carefully to their responses, reading between the lines if necessary. Any time a player sounds listless or bored, it is time to juggle something challenging into their path.

Through successful juggling, a campaign including players of all three types can be run smoothly. The key is to reward players for each style of play during an encounter. All the players will find things to interest them in the campaign, and the variety of player types and DM challenges should keep the game fresh and inspired.

Designing the Adventure and the World

Determining the type of game that is best for your group is only one of the challenges facing the DM. The other crucial ingredients the DM must provide are the settings and story line for the campaign.

Settings include all locations that the PCs are allowed to adventure in. It also includes the NPCs and creatures that may be encountered there, as well as information about the relationships among the denizens of the dungeon. Not all of these items must be presented in great detail at the beginning—it may be enough to say "orcs live here" and work out the hows and whys at a later date, presumably before the PCs decimate the orcs.

A story line should be roughly worked out ahead of time. A good story can draw all types of players into a game.

In any case, the DM does not have to prepare either the story or the setting entirely in advance. The following sections detail techniques that can give players the semblance of a thoroughly designed and well-thought-out world as they begin their campaign experiences, but still allow the DM to create new and entertaining features as the campaign develops and the PCs' motivations and intentions become clear.

As in any role-playing campaign, the underground game benefits from careful preparation by the DM. While it is not necessary to outline the entire campaign in advance, the more time that the DM spends in preparation, the better the result is likely to be. If conflicts and locales are anticipated ahead of time, fewer on-the-spot decisions need to be made. Thus, the players' impression of a consistent and reasonably believable fantasy world is maintained.

WORLDS OF ADVENTURE: THE IMPORTANCE OF SETTING

A campaign world is a DM's unique creation. It requires a lot of work and can provide DM and players alike with a great deal of enjoyment. Successful world design is a blend of many factors, some of which are described here.

Basic Characteristics

A few fundamental decisions must be made before the world design can properly begin. The scope of the campaign must be determined so that the DM knows what to define. An underground campaign, for example, requires little detailing of continents, seas, and nations on the surface of the world. A city, town, or village location is probably still necessary if the PCs are themselves surface dwellers—this provides them with a base of operations.

If the underground environment is made up of many dungeons, connecting caverns, and underground realms, the DM must make a general determination of the scope of these locales and their relationships to each other. Do creatures from the underground realms visit the dungeons? What types of civilizations can be found deep within the earth? These questions need not be answered in great detail, but they should be considered. Then if characters in a dungeon capture one of the deep-dwellers, you can at least give consistent answers as they interrogate him.

At first, it is not even necessary to determine facts such as "the drow live over here, and the duergar down there." As long as you know what types of races live there, you can assign their exact locations later. You can also add more races later as the game develops. It is much more difficult to remove a race that you have thoughtlessly located somewhere, so consider these placements carefully.

The general social structure of your campaign setting also requires thought. Do you want to create societies of clearly defined good and evil alignments and practices? While such societies are admittedly unrealistic, they are easier and less time-consuming to design, and allow players to identify friend and foe with relative ease.

Would you prefer to have complex, realistic societies? Good

and evil can be in opposition within the same society, and players need to carefully plan and implement their actions when interacting with these societies.

Real-life sources are common and very useful aids to DMs who are planning a world. The source can be a novel or series of novels in a fantasy mode, a study of a medieval or ancient society, or a game aid created specifically to help DMs with this problem. A good source answers many questions about the world, freeing the DM to concentrate on the specific details of the game.

The most important key to world design is variety. A good campaign world has areas both known and unknown to the PCs. Some locations are safe, and allow the characters a chance to rest after an expedition, while others are known to be dangerous, and offer myriad opportunities for adventure. Still others might seem to be quite safe, yet could conceal deadly dangers that the characters encounter at some opportune (or inopportune) time. In no case should the players be able to predict all of the characteristics of one location simply because "we saw a place just like this a few months ago."

Richness of Detail: The specific details of a world give it much of its flavor and realism. Details regarding locations, people, monsters, and cultures are all important. When you create a detail for one part of your campaign, be sure to make a note of it so that the detail remains consistent the next time it is encountered.

For example, if you plan to create a sect of evil clerics for your PCs to encounter frequently during their travels, decide what color robes these priests wear. They must have some kind of holy (or unholy) symbol—what does it look like? How is it displayed?

Adding details to your world is something that takes time, and you should not try to detail the entire world at the start of your campaign. Provide details only for those areas that you anticipate the PCs visiting in the near future. Once designed, details for a specific area often give you important head starts on detailing later areas. The evil clerical sect is a good example of this: those clerics can be described to the PCs in careful detail every time they are encountered thereafter.

If you have time, try to invent a general historical timeline and a collection of common lore for the world. Creating or drawing upon an existing pantheon of deities is very helpful, especially for clerics. Create a few long-standing mysteries of the world—mysteries that, sooner or later, the PCs may wish to solve. (Be sure you have some explanation for the mystery ready by the time the PCs investigate it!)

Variety of Options: This feature of world design is a double-edged sword that must be handled carefully. In most cases, you have a specific course of action that you wish the PCs to follow. This is the area you have detailed and the encounters you have designed. If the characters take off in the opposite direction, you not only have to invent off-the-cuff encounters to replace your prepared masterpieces of design, but you have wasted many hours of adventure preparation.

However, a skillful DM can channel characters into the settings and encounters he has planned, while making the players think it is their idea all along. This can be accomplished with a matrix of possibilities that all lead to one conclusion.

For example, say your characters are hanging around the town square of a small community, idly swapping stories with the old-timers. You want them to explore a remote keep, high in the mountains, that you have designed in painstaking detail. How do you get the PCs there, without letting them know that this is where you want them to go? Of course, most players cooperate if you simply tell them that this is the area you have prepared for the evening's game session, but this is an inelegant and heavy-handed method of motivating players.

Instead, create a variety of small encounters for the town square, each of which could send the characters in a different

direction, but each of which also ties in to the eventual goal of the mountaintop keep.

In addition, the world must have different types of locations. In above-ground settings, important differences can be defined by climate. Underworld settings do not have this readily defined criteria, but still require variety.

Natural and artificial settings can provide a source of variety. The sizes, shapes, and physical features of each area should have at least one or two unique characteristics. The inhabitants of an area can provide another source of variety. An expedition that encounters nothing but orcs and ogres becomes boring very quickly unless the monsters display ingenuity and variety in their tactics.

Although areas can contain similar mixes of monsters if your underlying world structure allows, try to add variety by having a few individualistic monsters. Perhaps an orc chieftain fancies himself a skilled judge of fashion, and thus has outfitted his troops in a particularly garish collection of costumes, while another is so starved for news of the outside world that he lets his captives live as long as they keep him entertained with stories (fanciful or true) of their homelands. If you feel that your campaign has grown too predictable and it has been a long time since you surprised the characters, now is the ideal time to spring some unusual setting or encounter on them. A sudden surprise can do a lot to make up for a few weeks of stale adventuring.

It is also important to provide a variety of both dangerous and safe places and encounters with creatures of good and evil. A game where every encounter places the characters face to face with a monster, forcing the PCs to kill or be killed, soon loses its lustre for even the most bloodthirsty players. It is far better to drop in a friendly or helpful NPC encounter now and then. Be sure to include some realistic consequences should the PCs decide to shoot first and ask questions later.

Some places should be presented as tranquil havens in which the adventurers can rest and recover. Whether in a wilderness, city, or underground locale, a brief period of rest and relaxation for the PCs makes the periods of danger and adventure seem that much more exciting. While you can certainly toss in an occasional dangerous encounter when the players are in a place that they consider a haven, do not make a regular practice of it. If players cannot expect peace and quiet anywhere on the world, adventurers often lose some of their basic motivations.

Consistency: By definition, a fantasy role-playing game postulates the existence of a fantastic location where the PCs can live and have adventures. As such, the location is not real, nor should it appear to be real.

However, any fantastic setting should be created with an underlying idea of why it is there and how it functions. Very often, these reasons have some basis in the past or present real world. A feeling of familiarity about an area is more important than realism to the success of the campaign. For example, everyone knows that dragons are not, and never were, real. Yet the concept of a huge reptilian creature with wings, breathing fire and devouring people, is familiar to most people. Therefore, when player characters encounter a dragon, the players have a sense of familiarity with the creature, and by extrapolation, with the world the dragon inhabits.

If you use a source of material for your world, then try to be consistent with that source to the extent that this fits into your plans. Do not slavishly devote yourself to re-creating the source world at the expense of good gaming, however. Use those pieces that augment and improve the game as a basic framework for your world, and ignore the pieces that are not consistent with your goals.

If a historical period and location such as medieval Europe is the basis for your campaign (as indeed it is for the game itself!), then certain aspects of that environment should be familiar to

WORLDS OF ADVENTURE

your players. A castle, for example, has many well-known characteristics. Non-player character roles are often familiar: blacksmiths, serfs, merchants, etc.

Another important sense of familiarity should grow with the game itself: the world must be founded upon a set of rules that all creatures and civilizations live and die by. Once you establish principles upon which the world operates, they should remain consistent unless you have a very strong reason for changing them. You may wish to establish simple laws of nature, such as the changing seasons, mountaintops encased in snow and ice, or regular tides. Once a determination is made for a world, it should remain in effect for the duration of the campaign.

As PCs explore a new world, it becomes increasingly familiar to them, and they begin to feel more at home. This does not mean that they know what lies behind each tree, or that there is no mystery they cannot solve—it is simply a natural growth of familiarity that can contribute to the players' enjoyment of the game.

Familiarity of social interactions is another area in which campaigns are often based upon real-world analogies. Thus the consequences of the player characters' actions fit society's interpretation of those actions. A thief who is caught plundering the village treasury should be required to pay a stiff penalty consistent with the laws of the land. Since virtually all civilizations develop some kind of structure (laws) to control the actions of its members, these laws can logically be extended into a fantasy world. In fact, without laws and their consequences, the role of a thief becomes very dull.

Intelligent Races: The successful creation of intelligent races is an area requiring a great deal of the DM's attention and foresight. Whereas the exact characteristics of a band of monsters may be generated quickly and casually, attempts to quickly design an intelligent race often blow up in the DM's face.

If the race is completely original and unique to your world, the

task is extensive. If you are using a branch or variation of a known race, including humans, you have a base of information to expand upon. In any event, there are several points about the race and how it fits into your campaign that you should consider.

What do its members look like? This issue is central to the creation of a new race. The answer should include a determination of the creatures' game statistics for all applicable areas. Remember that creatures generally look the way they do for a reason. Consider any known races that may be related to the new creatures; these can provide an initial framework for the new creatures' appearance. The appearance and game stats of the creatures should fit into the role you have planned for them in the campaign: are these creatures supposed to challenge, terrify, or befriend the PCs.

How does the race live? What do its members eat and where do they get their food? How do they prevent other creatures from devouring them? If the race has a specialized combat tactic, now is the time to plan it out. If the creatures present a problem to neighboring races, decide on the nature of the problem. Do the creatures fight among themselves?

Is the race civilized, and if so, to what extent? Just because a race is intelligent does not mean that it has achieved anything like civilization. Hallmarks of civilization that can aid in defining the level of a society's advancement include literacy, ability to work metals and build things, and knowledge of the world beyond the race's borders. The level of civilization often determines how well the race fares in its conflicts with neighboring races. It can also serve as a guideline for how much of the race's history is known, and whether such knowledge is documented or passed along by word of mouth.

Civilization also determines what kind of settlement the creatures live in. Generally, the more advanced the civilization, the larger the settlement. This does not mean that all members of an



intelligent race live in a large city if the race is civilized. Do the members of the race live in manufactured dwellings or natural shelters? If they are manufactured, what level of technology is required to accomplish the construction?

What are the race's customs? Any intelligent race develops an assortment of customs during its existence. Often, the reasons for these customs are no longer apparent, and the customs have attained the status of rituals, performed for time-honored but now-forgotten reasons. Other customs have their basis in the preservation of the society and its members. For example, the showing of an empty palm or the corresponding gesture of a handshake could well be outgrowths of an ancient custom for showing another that you raise no weapon against him. Customs can be very complicated and puzzling to outsiders.

It is not necessary to determine all of a race's customs before you introduce its members into your campaign. Often new customs can be developed to further your story or explain actions of the creatures that are necessary to advance your game. It is wise to develop a few customs for each new race, however, since this allows you to present the race in greater detail when it is first encountered.

What are the race's limitations? Does it have any significant weaknesses that the PCs can exploit? Are the leaders skilled? What types of weapons does it use, and how good is combat morale? Does it have any specific immunities or invulnerabilities?

Finally, what are the race's likes and dislikes? Many of these should be natural outgrowths of the other questions you have asked yourself. If the race survives by slaughtering and devouring the neighboring glocks, then it is a fair bet that they dislike the glocks. If the situation is reversed, then the dislike is a certainty!

A race that makes a point of living in isolation probably dislikes strangers, whereas one that survives by trade usually welcomes newcomers. Keep in mind the importance of appearance and first impressions when answering this question. Creatures naturally feel friendlier toward other creatures that resemble them, and may be completely horrified at the sight of creatures that look very different.

Uniqueness: This characteristic is not difficult to achieve. Every DM has his own style of play, and this makes each campaign unique to a certain extent. However, you should also strive for uniqueness within your world.

Even if you have based your campaign world upon a real-life source, you should try to add your own creative elements as well. Consider using unusual names to give your campaign a distinctive touch, whether you are naming places, people, or even objects. Create unusual or new forms of architecture and plant life. Try to devise original ways of handling the typical problems of city and village life. Unusual superstitions and practices also help differentiate your world from everyone else's.

There are times when you may not wish to add unique elements to a campaign, however. If you are trying to re-create a world that someone else has designed or created, you may strive to be as true to the original creation as possible. A DM who based his world on a fantasy book or series of books would probably want to be as faithful to the spirit of the source as he possibly could.

PLOT AND COUNTERPLOT: THE IMPORTANCE OF STORY

The story you design for your players is just as important as the world setting you create. In fact, the story line may be the most important element in your campaign.

In fact, the DM's function may be viewed as that of a bard or storyteller who creates the stuff of heroic fantasy with the help of

a few imaginative players. In this capacity, many DMs leave considerable room for improvement. The following suggestions are offered to rectify this. If a DM is willing to use them, his skill as a storyteller will improve, and both players and DM will have more fun with the adventure.

The Story Structure

Standard story structure has changed little in the ages since writing was developed. It must be assumed that the predecessors of early writers—those storytellers who spun tales for spell-bound audiences gathered around the ancient hearth—understood and exploited this structure as well. The wise DM understands this time-honored technique and uses it in his campaign.

The standard structure of a story begins with an exposition that introduces the listener, reader, or player to the location and circumstances of the story, and often provides hints about the story's main conflict. The exposition should arouse the curiosity of the players, and motivate them to take part in the adventure.

The story then develops for a variable span of time, until it reaches its climax. Such story development allows the players to gradually learn more about the plot. Tension increases as the players realize that something big is at stake, or that danger is imminent. A long story should have several climaxes along the way.

A climax is distinguished by a resolution of one or more of the major conflicts in the story. In game terms, the climax is generally a showdown between the PCs and whatever major source of evil they faced throughout the adventure. In order to be satisfactory, the climax must occur after the characters have overcome a number of lesser challenges, each leading them closer to the final encounter.

Finally, the story closes with a denouement. This is a short period of retrospection, during which the victors enjoy their spoils and review their accomplishments, and the vanquished count their losses and try to understand what happened. The denouement is as important in a gaming session as it is in a written story. It allows the PCs a chance to ask questions of each other (and perhaps the DM), and should be a pleasant period of basking in glory before the next challenge arises.

All of these structural elements should be present in the story created by a DM. As in any story, the exact timing and placement of each part of the structure is left to the storyteller's judgment.

The individual elements of the story are examined separately below.

Exposition: This is an important feature of the story, since this is where you must capture the players' attention and motivate them to discover the plot. A good exposition gets your story off to a strong start.

A common mistake of DMs (and, alas, module designers) is to have a non-player character deliver a long, detailed speech to the PCs, who meanwhile are supposed to sit and listen and then agree to do whatever the NPC suggests. Understandably, players almost always find this boring, and the poor DM is off to a bad start already.

While the plot and conflict of a story often demand that the players be given a great deal of information ahead of time, this can be accomplished without resorting to long, tiresome speeches. Instead of reading an introduction, the DM can act out an encounter with an important NPC, giving players an opportunity to ask questions. You may also wish to distribute maps, characters, documents, or other handouts to the players. If the PCs are involved in the exposition, they will enjoy it much more than if they were passively receiving the same information.

Another successful exposition technique is to prepare information cards and distribute them to players at the start of the

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game. The players then read their cards out loud, introducing each other to the story and becoming a part of it themselves. Ideally, the information given should fit the format of presentation. For example, if the PCs are attending a parliament meeting (or town council, or any similar assemblage), each player should momentarily assume the role of one of the speakers while he reads the information on the card. This adds an additional element of role playing to the other advantages of the technique. After they have presented the exposition, the players are allowed to keep the cards, and thus have handy references to the information needed to start the adventure.

Another time-honored technique DMs can use to introduce players to a story is to engage the PCs in a combat encounter immediately. This is especially effective with parties of Adventurer-type players. A sudden combat encounter forces the PCs to act as a team and gets them involved in the story immediately. The attackers should reveal some vague clues as to their purpose, either during the attack or through the confessions of prisoners taken in the battle.

Following the combat encounter, the DM can afford to spend a little more time on the exposition, since the players have already had a taste of action. If you feel you must handle your exposition by delivering a long speech, try to precede the speech with a combat encounter. Usually players are more willing to listen at this point than when they first sit down to the game.

Another popular exposition technique is useful if the players and DM have a chance to communicate between gaming sessions. To employ this technique, the DM provides pertinent expository information to some or all of the players a few days before the game begins. If the players have a chance to discuss the adventure before meeting for the game, they can make plans ahead of time rather than waiting for the first gaming session.

Development: The development of your story occupies more game time than all of the other structural elements put together. The story can develop in several ways, and ideally the DM will employ more than one technique during the game.

Encounters or events can provide fine story development, if the creatures encountered bear some relationship to the story's primary villain or adversary. When PCs battle the minions of their foe, they cannot help but learn things about the opposition. Such readily gained facts can include what type of creatures they are up against, how enthusiastic those creatures are in the pursuit of their cause, how well-trained and equipped they are, and what motivates them to serve their current master.

Noncombat encounters can provide valuable story development as well. Sages, seers, beggars, and other NPCs can be used as gentle prods, providing information that should send the PCs in the right direction. Puzzling notes, or maps concealed in cipher can also provide clues for the adventurers.

Not all encounters in the developmental stage of the story need to advance the plot, particularly when you are refereeing for players of the Adventurer type. Random encounters, for example, nearly always serve little purpose other than to create a sudden or challenging problem for the characters, and often give them a chance to engage in combat. If your story is advanced primarily by noncombat encounters, it may be particularly important for you to throw in a few random encounters, if only to keep the players interested. Some players, of course, become engrossed in the story itself and do not need to be entertained by unexpected combat encounters, so judge your feedback carefully to decide when a combat encounter is necessary.

Eventually, combat encounters should serve to point the characters toward whatever location or circumstance you have chosen as the climax of your story. This climax need not be reached in a single gaming session, of course, but you should try to arrange a semi-climactic encounter for the final combat of the evening. This allows the players to feel that they are making



headway toward reaching their overall objective, and can make each gaming session a short story in its own right.

Climax: The climactic encounter of your story should be carefully planned, with game balance a primary requirement. While you can easily adjust the balance during any encounter in which the fight seems to be going too smoothly or too dangerously for the players, the climax should be crafted carefully so that no fiddling is necessary. The encounter should be balanced so that if the PCs are run intelligently, they have a reasonable chance of overcoming whatever obstacle you have chosen—and possibilities for escape if they fail.

Ideally the climactic encounter of the story should involve more than a straight sword-swinging, spell-casting melee. The players should face mental as well as physical challenges. The climax will seem most rewarding to them if it allows the PCs to face the adversary who has controlled the evil forces throughout the story. Typically, this adversary is encountered in its lair, but this does not have to be the case.

A climactic encounter should include the possibility of claiming one or more of the character's lives, even if the party wins the battle. Of course, it is not necessary for any characters to perish, but a sufficient challenge generally requires a foe with deadly potential.

As you design the climactic encounter, consider the tactics that the adversary is likely to use. Tailor these tactics to the intelligence of the foe's leaders, and remember that the fight should seem every bit as important to them as to the PCs. Therefore, allow the adversaries some special aid, such as magical items or special defenses, particularly if the player characters are well equipped with magic. Perhaps the primary foe should be given an emergency escape route—the climax of a story does not mean that either the villains or the heroes must necessarily die. Some of the most enjoyable and long-running campaigns center around PCs trying to finish off a powerful villain who always seems to escape at the last minute.

Ideally, your climactic encounter should allow several potential solutions to the problem. Be flexible—if your players come up with a creative response that has not occurred to you, allow them to try it. A given encounter should have more than one route to success.

Consider also the staging of the climactic encounter. Where do you want it to take place? If it is not in the creature's lair, choose a location. Try to include some dramatic visual effects, perilous terrain, or portentous occasion. This is a common cinematic technique. An evil temple or a bridge swaying high over a fiery chasm is a much more dramatic setting for a climax than a randomly generated dungeon corridor.

Most importantly, when planning the climax of your story, make it dramatic! The player characters should feel threatened by the challenge you have created, and exhilarated if they overcome it. The encounter should be tense, with its outcome in doubt to the very end. Even if the PCs fail, they should feel that they have accomplished something significant by pursuing the adventure as far as they did. (Unless of course, they fail through poor play or lack of cooperation, in which case you should point this out to them.) The setting should add to the drama, not detract from it.

The key goal is that everybody has fun.

Denouement: The primary function of the denouement (pronounced day-new-MAH) is to tie up loose ends. If the PCs are victorious, they should have a chance to peruse the area where they located their foe (assuming this is appropriate), and perhaps gain a choice magical item or two. Allow them to find clues that answer many of their questions. Newly rescued, and very grateful, prisoners are often a useful source, allowing PCs to address many questions that might not otherwise be answered.

This should be a time of safety, since the major foe has been overthrown. Generally, a minor encounter following the climax

cannot help but seem anticlimactic. Like all of the other suggestions in this section, this one is not cast in stone. If the PCs seem a little too arrogant about their victory, a sudden surprise attack can serve as a reminder of their own limitations.

Often, the denouement provides an important piece of information leading the PCs to their next adventure. This is a fine tactic for keeping the plot moving along, particularly if the adversary of the new adventure is somehow related to this adventure's vanquished foe. It also avoids starting the next adventure with the same old "You're gathered together at the inn, and a mysterious stranger..."

Multiple Story Lines

A good role-playing campaign usually relies on more than one story at a time. The DM may tailor individual stories to the different types of players in the gaming group. Often, a long-running story provides a framework for all of the adventures in a campaign, while each gaming session tells a story within itself. A story line can be dropped temporarily while characters adventure or perform other activities, and be resumed when characters return to the original location.

Many a successful campaign is designed around a series of stories that follow each other sequentially, all sharing the same grand purpose. Such campaigns emulate the time-honored literary form of the heroic epic.

An epic is a single story with many episodes. The characters in the epic all pursue a fine and noble purpose, and each interrelated adventure attempts to bring them closer to achieving this purpose. Purposes suitable for epic stories must be truly broad in scope, and include such things as saving a world or nation, defending a god or religion, and exploring a vast and uncharted realm.

The main characters in an epic are traditionally of good alignment, although some variation is possible. In any event, the grand purpose of an epic should be a cause sanctioned by good, rather than evil, forces. The characters participating in the epic are often changed—usually for the better—by their participation. The purpose, if and when it is achieved, is gained at some cost to the heroes.

Creating an epic is a fine way to enjoy a role-playing campaign. The nature of the form provides an overriding conflict that can last for many game sessions, perhaps covering years of play. The isolated challenges that must be overcome make for ideal adventures of one or several gaming sessions. Player Characters advance in level during the course of the epic, becoming more capable of dealing with the mighty forces of evil that create the great conflict. If the epic is effectively presented, each small victory along the road to the final confrontation serves as a reward to the PCs, who no longer rely on gold and magical items as the sole measure of their characters' successes.

An epic must move along, however, or the ultimate goal becomes so distant to the characters that it seems virtually unattainable. The objectives that the PCs accomplish along the way should be challenging and dramatic, allowing plenty of the kind of action your players prefer. Ideally, each gaming session should end with some sort of plot climax, and a major objective should be accomplished every three or four sessions. Of course, an alternative to ending the gaming session with a plot climax is to use a cliffhanger ending, which places the PCs in a difficult and dangerous predicament that is not resolved until the next session. Players have a remarkably low tolerance for the cliffhanger ending, however, so its use is recommended only rarely. As a rule, a cliffhanger should only be used after a successful session climax.

Keep the game exciting with periodic changes. Create a new epic every year or so. Include an occasional side encounter that

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does not relate to the epic as a whole, but allows the characters to earn a meaningful reward. Provide a clue, now and then, to show that the far-off epic goal is gradually growing closer.

Story Elements

A good story engrosses the players through a variety of elements, many of which you can learn and improve upon. The following suggestions should help the DM to create a story that draws the players in and keeps them thoroughly entertained.

The Villains: A key ingredient to any story is main characters' adversary or antagonist. Although this includes any force that seeks to block the PCs from accomplishing their goals, including weather or other natural phenomena, most often the primary antagonist in a story is a living being. This antagonist may be represented by more than one creature, however. The successful presentation of your PCs' antagonist(s) is one key to creating an enjoyable story.

The antagonist does not have to be an intelligent creature. A marauding band of cave bears, for example, might make a worthy opponent for your PCs for a short campaign. Such unintelligent foes are best dealt with in stories comprising only a single gaming session.

Most players find it more interesting and rewarding to challenge a foe of at least minimal intelligence. Such antagonists present many more tactical options, and can be used in stories of considerable, even epic, length.

If the story is to be a long one, and especially if you attempt to create an epic, you will need a hierarchy of villains. The PCs may spend the first few adventures dealing with minor antagonists, without even learning who is the primary force behind them. In fact, learning the identity of the chief bad guy can often be a rewarding objective for the early adventures in a story. If you do have a hierarchy of villains, with various ranks of underlings who eventually lead to the main antagonist, you need to pay attention to all levels of the hierarchy—not just the top.

Try to make your villains unique NPCs in whatever ways you can devise. If an orc chieftain is the ultimate cause of trouble in your story, spend some time developing its character. Give it a unique appearance—something other than “the biggest orc in the dungeon.” Add some personality characteristics that set it apart from the rest.

After you have created your villains, you must find some ways to let your PCs become familiar with them. This does not require face-to-face confrontation, although that is a common and effective technique. Other tactics include having the villain's hirelings mention his name during combat or after being taken prisoner, arranging for the PCs to discover a message from the villain that reveals something of his nature, and hearing tales of terror and woe from victims of the villain's rampages.

By familiarizing your PCs with the villain or villains they face, you add a personal touch to the story that makes the final confrontation very exciting. Instead of miscellaneous monsters, the heroes are seeking an individual, often for an extended period of time. When the confrontation with this villain finally occurs, the players relish the experience as the culmination of many hazardous adventures.

The villains that your PCs confront during a story need not all be menacing focuses of evil power. A bumbling buffoon can occasionally serve as an effective low-ranking villain. The main antagonist, however, should be chosen carefully. This villain should be equal in power to the group of PCs taken together; or, if not this powerful, should be protected by an extensive series of bodyguards, traps, fortifications, or disguises. Remember, vanquishing this villain should be a challenging and dangerous encounter for the PCs.

Finally, the villain does not need to be destroyed or slain to be

vanquished. Particularly in an epic, but also as a general point of campaign management, the adversary may get away at the last moment, leaving his henchmen and holdings in shambles, but promising to return at some future date—or he may even return from the dead. You then have a ready-made structure for a future story, and the PCs have a built-in motivation for confronting that villain again. Of course, if the antagonist is an NPC who is absent from the campaign for a time, be certain that upon his return, his power has increased sufficiently to maintain the previous game balance established between him and the PCs.

Foreshadowing: This is a storytelling technique that is commonly used in literature and films, and needs to be used in gaming. Foreshadowing simply means vague hints, portents, dreams, or other clues to let the players that something is going to happen. Foreshadowing builds suspense and increases mystery as it familiarizes players with the obstacles that lie in their path.

Foreshadowing can be used as a warning. For example, if you have designed a dungeon that includes a very deadly trap, the existence of this trap and some means of recognizing it should be foreshadowed. For example, a message stating, “Beware the chamber of the black hole” may be scrawled in blood on the dungeon wall. This message does not reveal the exact nature of the threat, and there may indeed be several rooms with black holes inside the dungeon, but at least the PCs know to be on their guard in such circumstances.

Foreshadowing is a particularly effective device if your players are primarily Problem-Solvers, as it provides many opportunities for creating challenging puzzles and riddles. Be sure to use variety in the type of foreshadowing you employ; corridor after corridor of bloody writing on the wall soon loses its impact. Often the players themselves give you an opportunity to use foreshadowing: the casting of an *augury* spell, for example, is an invitation to the DM for a few clues about the future.

Dreams are an effective, albeit somewhat heavy-handed, tactic of foreshadowing. Alternatively, the PCs could encounter a fortune-teller who pronounces a dire warning, or receive an anonymous message from some mysterious source. Rumors picked up in town can also foreshadow events of the story.

Mystery: A story line can be much more fascinating to readers or players when some of the facts are unknown. Curiosity is a great motivator, so the wise DM attempts to work some mystery into his story line. Discovering the answers to the mystery can be a major and satisfying reward for all types of players.

This does not necessitate creating a who-done-it in the popular sense of the word, although this story structure is often neglected by DMs, and can be used quite successfully. In the larger sense, mystery is simply the unknown. It inspires players to ask questions, and the DM can plan his adventure around the characters' search for meaningful answers.

It is not difficult to add mystery to an adventure. A simple technique is to keep the antagonist's identity secret for much of the game. Every so often, however, a clue should be dropped, so that clever players can eventually identify the foe. For example, a group of players might be interested in entering a known vampire's lair and putting the undead monster's depredations to an end. This encounter can be much more effective the characters enter the dungeon seeking some unidentified evil creature that has been snatching young people in the night. As the party moves deeper underground, they encounter clues. Bats and wolves attack. A slain character with a broken mirror and a pouchful of garlic lies in the party's path. Finally, they stumble upon a room containing a fresh corpse marked with the distinctive fang marks of his killer. The knowledge that the party faces a vampire is much more chilling (and hence, enjoyable) if it is gained in such a fashion.

Mystery can be an important feature of campaign life as well.

The character who does not know his parentage always has something to wonder about. A party that returns home to find that their community has completely vanished has a whole series of questions to answer—questions that may keep them occupied for many gaming sessions to come.

Long-standing questions, such as the anonymous parentage situation, can lurk in the background of a campaign for a long time. You do not need to have all the answers worked out, although it helps if you have a general idea. Then, sometime when you need a fresh plot to challenge your party and start off a new story line, you can drop an intriguing hint. The players naturally try to solve the mystery they have wondered about for so long. For example, a ragged stranger could appear, battered and bleeding, to gasp out a message: "Are you Eric of Calrede? I have journeyed from distant Wellspar to bring a message from your father! He...gasp..." (at which point the messenger dies). Of course, if you are dealing with PCs who can *speak with dead*, you will need to use a different technique.

Challenge: An adventure that does not challenge the players is really no adventure at all. The level of challenge that you should present is difficult to ascertain, however, since too much of a challenge frustrates the players, while too little bores them. Fortunately, DMs have a great deal of latitude when it comes to challenging players.

The challenges in the game should be shaped to fit your players' mental and physical interests and abilities. With a group of Adventurers, it makes sense to rely primarily upon combat encounters and other physical challenges such as steep climbs and treacherous crossings. Even with these players, however, it is wise to include an occasional mental problem such as a complicated trap or riddle. The opposite applies to Problem-Solvers. Role-Players often find negotiating sessions or conversations with NPCs challenging. Pay attention to player feedback and modify game challenges accordingly.

When arranging challenges for your players, pay attention to game balance and the function that the challenge serves in your story. If it is a randomly generated encounter or introductory trap, you probably do not want to challenge the PCs too strongly. However, a climactic encounter, or an obstacle that represents a major milestone in the advancement of your story line should challenge the players to their utmost limits. It takes experience to learn how to establish the balance of an encounter, and DMs can only gain this from play. Although a simple comparison of Hit Dice and average damage inflicted by the PCs and their opponents can give you some rough ideas of the encounter balance, battles are generally decided by a very complicated combination of factors. Party and monster tactics, relative positions, and luck all play a part.

You can, however, plan encounters so that intelligent PC play is sufficient to overcome the challenge. Be sure that logical solutions developed by the players have a chance to succeed. In addition, keep in mind that if you roll dice behind a screen, you always have the option of changing any die roll that is particularly devastating to the outcome of the encounter.

Reward

Just as the DM must challenge players to keep them interested in the game, he must also reward them for meeting those challenges. Rewards should be based on the level of the PCs' accomplishments, and you should keep track of the number of rewards that you grant. Just as an excessively powerful monster can destroy the balance of an encounter, characters with tremendous wealth or power can destroy the balance of an entire campaign.

Rewards can take many different forms. Try to use different types of rewards for different types of accomplishments, and do not neglect any one type in deference to the others. It is important to remember that rewards should be handed out during the



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adventure as well as at the end. Rewards can include key clues that show the players they are on the right track, small treasures, or equipment that is needed later. This helps maintain player interest throughout the adventure.

Magical items: These are always welcomed by the players, and can be one of the best forms of reward, if used sparingly. As a general principle, try not to let any character gain more than one or two permanent magical items for each level of experience. You can be a little more generous with disposable magical rewards such as potions and scrolls. Of course, you cannot control how the party divides up the loot after an adventure, but most parties are fairly equitable about this. You can choose items that will be best utilized by characters who seem particularly deserving, either by giving items useable by only one character class (rods, wands, and scrolls, for example) or items likely to be given to members of certain classes. Magical leather armor usually ends up with a thief, for example, while a *mace + 3* is most often given to a cleric.

The importance of keeping a lid on the amount of magical items you distribute cannot be stressed too much. Nothing kills a campaign, and a DM's enthusiasm, faster than a group of mid-level characters armed to the teeth with potent magic. Kingdoms fall and monsters are decimated at a rate that precludes anyone having much fun.

If possible, permanent magical items should be described in detail by the DM or the players at some time. Magical swords, for example, can be named. Often they are inscribed with a crest or script that tells the PCs something about the sword's past, or indicates which character should rightfully carry it. If left untranslated, the mystery involved in some archaic script can provide a plot device to involve your characters in a future adventure. For example, the PCs could encounter an old sage whose eyes widen in awe at the sight of the sword. The sage might declare, "You carry the blade of Sathas Sundown! You are destined to bring down the evil of the Black Tower!" Of course, the character is not forced to journey to the Black Tower, but if he does not, the sword's destiny might carry it to someone who is a little more cooperative.

An important method for maintaining balance is to assign limitations to every permanent item. For example, you might present a sword that glows brightly in the dark and only operates fully when fighting evil, or an animated wax statue that is very vulnerable to flame.

As illustrated here, try to make your magical items more than just high-powered additions to the PC arsenal. They should become a meaningful part of your story, serving not just to reward successful play, but to advance your story and add to the detail of your campaign world as well.

Wealth: Gold, silver, and other valuables represent a standard category of reward. As with magical items, the DM must be careful about the amount of wealth given to the players as rewards. Unlike magical items, however, it is fairly easy to remove excess wealth from the PCs without causing long-lasting hard feelings.

The amount of wealth that you allow the PCs to collect on their adventures should be balanced by the amount of expense they encounter in your campaign world. You can use taxes, thievery, heavy tolls and outrageous prices for goods and supplies to reduce the amount of cash characters carry around. Experience points for wealth that is gained and then lost are granted normally, and not lost with the money. Thus, DMs must retain a measure of control, or characters will advance in level faster than is good for them or the campaign.

One way to control this is to place monetary rewards in large bulks of low-value coins, such as silver or, for low-level characters, copper. Characters who carry their fortunes with them become considerably encumbered. Gemstones and other small but valuable items should be found only rarely until the charac-

ters have advanced a few levels.

The principle of variety applies to character wealth as well as to the rest of your campaign. If players occasionally have a chance to spend money like it's going out of style, it increases their enjoyment of the game. You can retain control of your campaign by arranging that those characters are cleaned out a week later and are forced into adventuring just to pay for room and board.

Discoveries: Information can be an extremely effective reward, particularly for characters who are interested in more than the monster in the next room. Even in this case, however, information about that particular monster can occasionally serve as a meaningful reward. In other cases, information serves to advance story lines, answer players' questions, point out solutions to problems that confront them, and warn them about particularly nasty traps or encounters.

The more important the story is to your players, the more meaningful information becomes as a reward. By creating story details and thoroughly designing the PCs' primary adversaries, you generate a wealth of information for the players to uncover as the adventure progresses. When the players successfully conclude an encounter, you can provide them with clues from which they can deduce bits and pieces of information about the story and the world. The key to using information as a reward is that it should not be completely defined for the players—rather, information is most valuable when players must use clues to piece it together themselves. Information gained this way adds to the players' enjoyment and increases their sense of familiarity with the campaign.

Gratitude: The friendship or gratitude of NPCs can be used to reward PCs for certain accomplishments. It certainly does not harm a character's position if the high king owes him a debt of gratitude! Situations in which this type of reward is appropriate generally grow out of your story. If the PCs perform an act that greatly benefits an NPC, that NPC is likely to feel grateful. Of course, certain extremely jealous or mistrustful NPCs do not feel any debt toward those who have aided them, but in most cases gratitude is sincere.

The extent to which gratitude benefits the PCs must be determined on a case-by-case basis. If a king has paid the characters good money to rescue a princess, he may feel perfectly justified in ruling that no debt is owed after payment has been made. If the PCs perform acts of heroism without openly expecting monetary rewards, however, the beneficiaries of their actions may reward them, and still feel a debt of gratitude. Such cases are best resolved by a careful evaluation of the NPCs' motivations, as well as the actions and attitudes of the player characters involved.

A debt of gratitude may be spelled out clearly for the players. The king, for example, might say, "Anytime you need anything, do not hesitate to call on me! I promise to do anything I can for you." This is a pretty clear-cut offer. If no such promise has been made, the PCs may still approach the king with a request for a favor, but he is less likely to automatically grant it. Of course, even in the initial example, nothing guarantees that the king will not change his mind at some point.

Debts of gratitude are not limited to high and mighty NPCs such as kings and nobles. A beggar or barmaid who has been spared some threat or indignity by the player characters is very likely to return the favor if an opportunity presents itself. Keep the PCs' motivations in mind when determining the likelihood of this type of reward; if the characters do something purely because they hope to be rewarded, the debt is less binding than if their motives are selfless.

Accomplishment: For good players, accomplishing a difficult objective can become a reward in itself. This is particularly true in a campaign with the Role-Player type of participants. If a Role-Player's character is a cleric who is sworn to the pursuit of good, he should gain a sense of reward simply from performing good

deeds. This sort of intangible reward is usually best as an occasional alternative to treasure and magical rewards.

A nice feature of this type of reward is that the DM does not have to do anything other than run the adventure in order to implement it. While accomplishment does not work as a reward for all players, if you have players who respond to it, you should use it. Your task is to create adventures that challenge the PCs to perform acts that they perceive as valuable and worthwhile. The success or failure of these acts should be immediately apparent to the players.

Experience Points: These points represent a game mechanic whose major function is to reward players. As the primary measure of when a character is ready to advance in level, they are an essential part of the game. Like all other types of reward, except sense of accomplishment, their distribution requires careful DM planning and adjudication.

The *DMG* gives a fairly detailed description of the amounts of experience points awarded for various accomplishments. Remember, however, that you always have the option to adjust the reward either up or down based on the level of play and the accomplishments of the player characters. For example, a fighter who single-handedly holds off a group of trolls so that the rest of his party can rescue captives, and then covers the retreat of the party, but fails to kill a single troll, should probably receive some experience points for his heroism. A group of characters who trigger a landslide that wipes out an entire village in order to slay a single thief resting at the village inn should not get experience points for their actions, particularly if the characters profess to be of good alignment. You could even assign an XP penalty!

You may tentatively assign experience points to potential PC actions as you design an adventure, awarding them if the PCs perform those actions. If the player characters have infiltrated a pirate base on a mission to rescue prisoners, you might decide to award them an additional 1,000 XP for each pirate ship they burn while on the base. You should not tell the players about such awards until after the adventure is over, since part of the reason for granting experience points is to reward their ingenuity in thinking of the action in the first place.

In certain adventure situations where treasure-gathering and monster-slaying are not the primary objectives, you may find it appropriate to completely restructure the experience point award system, at least for that adventure. Experience points should be used to award characters for the kinds of actions you wish to encourage in the campaign setting. Reward good play!

Each DM should decide whether or not to award experience points for magical items discovered, based on what is desirable for that campaign. If experience points are awarded for magical items that are found and used by the PCs, then they should not be awarded for magical items that are found and sold.

Moral: This story ingredient story is one that many DMs are uncomfortable with, but using it can greatly strengthen a story line. The exact nature of the moral is up to you. It is important to realize that in your role as storyteller, you have an excellent opportunity to share a meaningful lesson with your players. If you are not heavy-handed about it, they will probably not even notice you are doing it.

The moral of a story may be simply explained as the notion that player characters' actions should have proper consequences. The PCs should not function in a vacuum in which their actions are the only significant occurrences. The campaign is much more gratifying to DM and players alike if the surrounding social structure places some expectations on its members, and the characters can choose how they will respond to that social structure. This does not mean that your PCs must behave in a dignified, proper, and respectful fashion at all times. It does mean that anti-social, harmful, or objectionable behavior is met with some kind of appropriate consequence.

The most important example of this is player cooperation within the party. The party that is unable to agree on a course of action expends more time and energy fighting each other than fighting monsters. Either the players learn to cooperate, or the monsters will have an easy time defeating them.

Other categories of moral consequences are more difficult to judge. However, a cursory look at past and present societies can help you determine appropriate consequences. For example, all societies frown upon the taking of innocent lives—at least, if the victims are members of that society or those it views as friends. Most societies respond by attempting to exact revenge upon the killers.

Players who kill must either face society's wrath or try to avoid it by fleeing. Killers may face jail terms or hanging. If they become fugitives, they are likely to arouse the ire of the populace and gendarmerie, which can complicate and even endanger the PCs' lives. If they repeatedly commit murders, chances are that sooner or later justice will catch up with the villains and they will be punished.

Another common theme of an AD&D® game session relates to the interaction between challenge and reward. The moral that most DMs try to impart is that accomplishment merits reward. Unfortunately, this moral lesson can be quickly lost among the mounting piles of treasure that are gained at little risk or cost to the PCs.

Sometimes you may wish to create a story for the sake of its moral, in order to show the players the consequences of a type of activity. Select your message ahead of time and create a story to prove the point. Possible morals for this type of story include "It's not wise to fool the king," "A thief shouldn't flaunt his wealth in front of those he has robbed," and "Things are not always as they seem."

TECHNIQUES OF STORY AND CAMPAIGN DESIGN

The story line a DM chooses affects the type of gaming environment he creates. This section discusses three types of adventure design, and shows how each is related to plot development.

The Linear Adventure

A linear adventure is one in which the story line advances through a series of encounters that must be played in a certain order. While the PCs handle each encounter as it arises, they are given little or no choice as to where they go between encounters, unless they want to stop or turn back.

Linear design seriously limits choices. Dungeons work well as settings for linear designs, since you can simply draw a map that leaves only one possible route for the characters to follow. Each encounter can be planned with the certain knowledge that the PCs will have passed through a predetermined series of locations beforehand. Outdoor linear adventures are more difficult to control, although obstacles such as impenetrable walls of thorns or impassable bodies of water occasionally suffice to limit PC choice. Linear adventures have an advantage in that design time is never wasted on areas that the PCs do not use.

Designing a linear adventure becomes more difficult as the PCs increase in magical power. The assortment of spells available to high-level mages and clerics can make even dungeon corridors insufficient to keep characters from wandering off the path.

Linear adventures work well for tournament play, since all players encounter the same series of challenges, but for less structured play it is generally undesirable. Players become frustrated by the absence of choice, and feel that the DM is railroading them through the adventure. Occasionally, however, you may find a lin-

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ear adventure useful in a dungeon or other underground setting. Directed play with the illusion of choice can succeed while actually being linear, as players feel that they control their own destiny.

The Open Campaign

This type of game de-emphasizes the DM's story, and instead relies almost completely on player character choices to determine the course of events. In an open campaign, it is the DM's responsibility to create an interesting world for the PCs to explore and adventure in.

Obviously, an open campaign creates problems in terms of DM preparation. Since you must be prepared for virtually anything, it is necessary to create and detail the countryside all around the PCs. You also have to seed the entire area with conflicts, so that wherever the PCs go, they find something to challenge them.

Players can have a lot of fun with an open campaign style of game, especially if they are of the Adventurer type. Such a game can continue indefinitely as the PCs seek out and plunder dungeons, stumble into wars, and discover new worlds. If the players prefer Problem-Solving or Role-Playing to hack-and-slash play, then your challenge is even greater. Designing a steady and diverse diet of mental challenges for the Problem Solvers, or new and unique NPCs to interact with the Role-Players requires even more work than a wide variety of combat encounters. You might consider including problems of a national scope so that rumors and clues can be discovered wherever the PCs go. NPCs, too, can be made nomadic so that they may be encountered and re-encountered by the PCs in their travels.

Open campaigns require the DM to invest a great deal of design time. If you have enough time, you may find that after a number of adventures you have created and detailed an entire world setting.

Although you can add story elements to many areas throughout the campaign world, an open campaign makes it hard for the DM to structure a story through exposition, development, and climax. You may find that your players have a natural tendency to develop a story structure themselves, especially if the clues you present lead them to the places you expect. In this case, a very strong story line can grow in the campaign. Other players, however, take perverse delight in doing the exact opposite of what they perceive you want them to do. Unless you are an expert at reverse psychology, developing a coherent story for these players in an open campaign requires exceptional inventiveness. Of course, the story line may not be what these players enjoy about the game anyway.

Events: One way you can allow your players to roam about the world in open campaign play without having to create extra encounters to challenge them is to employ encounters as events. Events occur wherever the PCs are. If you want them to stumble upon a dragon's lair, then place the lair in their path when you want the encounter to occur. Of course, you must exercise some logic—the dragon's lair obviously won't be encountered in a city or among a farmer's fields. Sooner or later your players will journey through some terrain that is suitable, however, and you can arrange the encounter.

Another shortcut in DM time management is to ask the players ahead of time what they feel like doing in the next few gaming sessions. While this does limit spontaneity, it allows you to create detailed and challenging encounters of the type the players seek. The players may be very general in their answers, such as "a dungeon adventure" or "we'd like to see if we can find anything out about a dragon's lair," leaving you to add the details.

Even though the story element in an open campaign is subjugated to the players' whims, it is important for you to devise large-scale background conflicts for the PCs to deal with in many

different locations. Wars accomplish this very well, particularly if the PCs have a chance to meet the principals on each side. Major natural disasters such as a winter that doesn't end or a plague of man-eating plants can be used as continuing threads throughout the adventure.

The Matrix Campaign

The matrix campaign allows the DM to create a detailed story with a developed plot, while still allowing the players to choose where they go and how they deal with their challenges.

The key to a matrix campaign design is to create a goal or series of goals that the PCs are motivated to accomplish. The matrix campaign is a very effective style of design for creating an epic or a string of connecting stories. In many ways it represents a compromise between the linear and open campaign styles of play.

The PCs in a matrix campaign start out at a location chosen either by you or by the players. You then provide them with a short exposition and some clues that open a number of different options. For example, the characters may discover that a sect of evil clerics has been gradually gaining control of the land. They may witness peasants being arrested by the clerics, or see places of worship for good-aligned deities suffer raids and vandalism.

The next move is up to the players, with a little bit of guidance from you. Perhaps one PC remembers seeing a temple to the north, emblazoned with the evil sect's sign. To the east, recalls another, is a great temple of good where the PCs could go for information. Meanwhile, a group of peasants are hauled off into slavery to the south, and one begs the characters for aid. All the time, you know that the headquarters of the sect lies to the west, but you bide your time in revealing this information to the players.

With this technique, the players become involved in the story, yet are not railroaded into a specific task chosen by the DM. You are prepared for a few courses of PC action: a raid on the temple to the north, an interview with the sage to the east, or a prisoner rescue mission to the south.

Depending on the length of the story you wish to create, you might have clues in each of the three locations point directly toward the heart of the problem (the evil sect's headquarters to the west), or you might continue to expand the matrix. The players who rescue the prisoners might lead them as an army to reclaim their homeland. If they visit the good temple, perhaps they are sent on a quest to gain some item of great power from the evil temple to the north. If that evil temple was their original goal, they might gain the magical item on their own initiative.

The matrix can continue to expand for as long as you wish. All of the different branches eventually steer the PCs toward the headquarters of the sect, where the climax of the story takes place. If you wish to move the plot along more quickly, you can schedule events that occur wherever the PCs are. Events can be encounters with significant NPCs, visions and dreams, social or political changes, or quick scenes designed to show the PCs a pertinent fact.

A matrix campaign must eventually meet a border, beyond which the PCs are discouraged from passing. Borders can be designed as either soft or hard.

A soft border is one that turns the PCs back into the story through their own motivations. Players who resist any pursuit of the evil sect, for example, might encounter a group of hapless waifs whose parents are held prisoner. The children appeal to the players' sense of decency. In cases where this appeal is fruitless (many DMs can predict this ahead of time), a mysterious stranger might offer a reward of valuable gems for evidence of the sect's destruction. Judge your players carefully to decide what type of persuasion motivates them best.

Players who fail to yield to any kind of motivation can be allowed to occupy the story's setting for as long as they like, even if they don't take part in it. If they attempt to leave the area, however, they must encounter a hard boundary. This can be a physical obstacle, such as a high cliff, stormy sea, or trackless desert. Alternatively, it might be something like a huge army camped in the PCs' path, with a continually increasing series of encounters with more and more troops. *Quest* or *geas* spells serve as hard borders, but should be used only as a last resort.

The story matrix should contain several ways for the PCs to approach the final encounter, and several means of dealing with the challenge created there. Not all of these means must create the same likelihood of success, but the PCs should not be doomed to failure in the final encounter simply because they made a wrong choice at some point in the adventure.

You should also prepare for the possibility that your players may not have gained enough information about your story line to figure out the next course of action. Despite a DM's thorough and detailed descriptions, an amazing number of players seem to have no idea of what's going on. If this happens in your campaign, you need to gently but firmly show them the path.

Non-player characters can be particularly useful at such times. Perhaps a henchman speaks up as all the PCs stand around scratching their heads, and indicates your preferred course of action. Or the party might encounter someone very wise, such as an old sage, magic-user, or hermit. This NPC could provide details on the next step of the adventure in language so plain that all players should be able to understand it.

Foreshadowing can be effectively employed to show characters whether or not they are on the right track. Ill omens and portents of great danger do not always discourage players—after all, these are some of the ingredients of good adventure—but they can be presented in such a way that the PCs are able to figure out whether they are going the right way or not.

RUNNING THE GAME

Creating a story and designing the necessary settings and encounters are only part of the DM's job. The second major responsibility of the referee begins when the players have all gathered around the table and await the start of the adventure.

The DM's functions during a gaming session fall into two categories: presenting the story in such a manner that the PCs are drawn into it through their own motivations, and refereeing the game mechanics so that they move the story along, rather than hinder its development. These functions, along with some suggestions for improving the quality of your game, are detailed here.

Preparing For Play

As a rule, the more time you spend preparing for the game, the more smoothly it will run. Since most DMs face time constraints, it is often necessary to streamline game preparation.

If you do not have the time or inclination to detail all of the places that the PCs are likely to visit during the game, it may be useful to create a few lists so that you can randomly generate information when you need it. A list of eight NPC names, for example, should provide most of the new NPCs that the players might encounter in a gaming session. When they meet someone, you can either roll 1d8 or select an appropriate name from the list.

Other lists can contain personality traits and characteristics of appearance. These three lists can easily be combined to provide you with a ready-made NPC generation system. Since you have created the lists, you can expand or modify them freely, and thus have available a tremendous number of combinations of characters' names, appearances, and personalities.



THE DUNGEON MASTER AS MASTER STORYTELLER

Most DMs use a coded system of notes for describing areas and NPCs to the players. If you do not, it is worth developing one. Listings such as AC, HD, hp, MV, and damage are all important for encounters. Areas can best be detailed through the use of your own maps and symbols. The fewer words you use, the better.

A useful piece of shorthand, already known to many DMs, is the term "THACO." The abbreviation stands for "To Hit Armor Class 0" and if you record a THACO score for each of your monsters and NPCs, you will almost never have to consult the combat tables during play. To create a THACO rating for any creature, simply determine what roll on 1d20 the creature needs to hit an opponent with Armor Class 0. For example, suppose an ogre with 4 + 1 Hit Dice would strike an AC 0 opponent with a roll of 15 or better. Once this number is recorded in your notes, you can easily determine what you must roll for the ogre to hit any opponent. You simply subtract the AC of the foe from the ogre's THACO rating, and determine the number needed to hit. A creature with AC 6, for example, is hit by the ogre on a roll of $(15 - 6 =) 9$ or better; a character with AC -4 is only hit on a $(15 - -4 =) 19$ or better.

Map symbols are discussed in greater detail in the section on mapping (page 114). It is worth the effort to develop symbols for new types of locations, because the more information you place on your map, the better the descriptions you can provide for the players.

It is also a good idea for the DM to spend at least a few minutes thinking about unexpected courses of action that the PCs might take. You cannot anticipate everything that the players might try to do, but careful thought can prepare you for one or two surprises that might otherwise threaten your entire story line. If you can anticipate surprising or unexpected PC actions, you can either steer PCs back into the story line you have created, or take steps to allow the adventure to expand in the direction the PCs are taking it.

Preparation is also necessary when placing treasure. You should carefully consider the amount of wealth placed and the impact of magical items on game balance. Also, be sure to match the challenge that must be overcome to the value of the treasure. These decisions are too important to wait until the last minute.

The Dungeon Master as Master Storyteller

The DM's role as storyteller becomes most obvious while the game is being played. Describing settings to the players, running the many NPCs that the party encounters, and springing dramatic surprises are all typical storytelling activities. In a role-playing game, the listeners' involvement with the story brings this point home even more powerfully.

Just as certain techniques help a DM to effectively create a story and design a setting, so can he improve his storytelling ability by applying a few proven principles. Several of these are listed and explained here, and can easily be incorporated into any DM's style of gaming with no advance preparation.

Pace affects both game mechanics and story development. The DM has great control of the pace of the game. The number of minutes required to resolve a melee and the rate at which the characters proceed through the story are both functions of pace.

As it is with all aspects of the game, variety is important regarding pace. Ideally, there should be moments of dramatic suspense and intensity with fast, furious actions and desperate challenges. These moments should be broken by periods of rest and security, in which the players can take as much time as they want to discuss their options and make plans.

Game mechanics should be used to help you maintain the pace of the game at the desired levels. If you find that certain

rules significantly slow the pace of the game, discard those rules. You can create your own streamlined versions to handle situations, or simply proceed by DM decree. Game systems such as Weapons vs. Armor Class Modifications and detailed recording of spell components can be fun for characters who enjoy great detail for their characters. For players whose main interest is role-playing, the game may proceed smoothly without such game systems.

The more you prepare for a gaming session beforehand, the greater control you can exercise over the game's pace. Detailed notes about your settings and encounters prevent you from having to waste time thinking up these details during the game. They can also prevent you from making a snap decision that destroys the balance of your campaign.

If you review the rules relating to particularly critical areas of play before the relevant situations arise, you can avoid flipping through the rulebooks while the players impatiently await your decision. Of course, it is not always practical or possible to do this. If you are introducing a complicated monster that you have never used before, or if your PCs are traveling through specific environments, review of the pertinent rules can help greatly. If you have designed an adventure with a watery environment, a review of the swimming and boating rules beforehand can help keep the game moving smoothly.

Voice is the DM's primary tool for providing the players with information, establishing a mood for your adventure, and conveying various emotional aspects of the game such as surprise, anger, triumph, and fear. Your use of voice encompasses the tone, volume, and rate at which you speak, as well as the words you use to tell the tale.

Tone is the most effective means of conveying many emotions, although it is difficult to describe on paper. You can use the tone of your voice to create an aura of sadness if the PCs are exploring an ancient ruin that was abandoned under tragic circumstances. Likewise, the laughter and jolliness of a friendly inn can best be communicated through the tone of your voice as you describe it.

Volume is an effective tool for conveying sudden or shocking occurrences, as well for conveying emotional intensity, but beware of overdoing it. A loud outburst or battle cry is only effective if the players are not expecting it.

You can develop or create intensity by varying your rate of speech. An effective storyteller understands the need for an occasional pause, either to let the listeners fully absorb the impact of something that has just occurred, or to allow them to ponder the possibilities of something that is relatively unknown.

Choosing the right word or phrase at any given time is a skill that can be developed through practice and reading. Make an effort to be colorful in your descriptions. Instead of, "You get the door open," try something like, "The door crashes inward in a blast of splinters!"

If you write out passages of description for yourself or the PCs, read them aloud before you use them. You may find that something that looks very good on paper is less than effective when spoken.

You may wish to develop a variety of voices to use for NPCs. Some relatively easy voices to use include those of old men, old women, children, witches, pirates, greedy merchants, suspicious guards, gloating villains, and heroic leaders. In addition, add some characteristics that can be easily portrayed. Whining, hissing, croaking, whispering, growling, ingratiating, angry, or arrogant voices can all be presented with a minimum of practice.

Any of these voices can be augmented by the use of facial expressions and hand gestures. In this way, you create well-rounded characters for the PCs to interact with.

HELP FROM THE PLAYERS

Many DMs attempt to handle nearly all aspects of game mechanics, concealing most die rolls from the players and secretly keeping track of PC hit points and other statistics. Obviously, a certain amount of mystery is essential to running a good game, but if you are overburdened and your players do not have enough to do, you become frustrated and they become bored.

The exact nature of the tasks that the players can help you with depends greatly upon your desires, the players' level of maturity, and the type of game that you wish to run. As a rule, the more things you allow the players to do, the more smoothly your game will progress. No DM was ever bored for lack of things to do during a gaming session!

The following suggestions include many tactics that you should consider carefully. Certain situations such as tournament play or highly competitive campaigns require more DM supervision than an average game. In other cases, your PCs may be mature and trustworthy enough to take on many of the responsibilities of running the game.

Rolling Up Player Characters

This is usually fun for players, and with a cooperative party, PC creation should require little or no DM involvement. Players may be asked to supervise each other's dice rolls, if you wish, and you should be sure that they understand which procedure of PC generation you are using for the campaign.

At the start of a new campaign, you can usually use the time gained to add some final details to your setting. In an ongoing campaign where only one or two new PCs are required, it will not take long to generate the new characters, but you can still use the time to attend to other details. If players are new to the group and the campaign, have the other players explain the circumstances of the adventure. More experienced players can also help novices learn about the various character classes and races, as well as lead them through the character generation procedure. This leaves you free to answer the questions of other players, or to complete any last-minute preparations you need to make.

Providing Ideas for Adventures

Employing the players' ideas for adventures is a helpful tactic, but in order to use it effectively, you need to think ahead (at least to the next gaming session). When players are between adventures or coming to the end of a story line, you might ask them what type of adventure they would like to participate in next. Of course, you must create the details, but allow the players to suggest a general category.

For example, they might indicate a preference for a long underground expedition. Perhaps they wish to discover a route to the vast realms and wealth of a drow kingdom. With this in mind, you can arrange for the PCs to gain a few clues at the start of the next gaming session that lead them to a dungeon entrance. Beyond it lies a tortuous maze that just might take them where they wish to go.

This tactic is especially handy if you have difficulty coming up with the kinds of adventures that your players find interesting. By asking them in advance, you can be sure to create a story that falls in line with their desires. You can also use player feedback while you are playing a game—consider adjusting your story to meet the players' expectations as you go along.

Character Class Responsibilities

Characters of different classes may have obligations as a result of game rules or campaign considerations. Although you need to see that these responsibilities are clearly understood, and you may occasionally have to remind the players to fulfill them, these acts should primarily be an area of PC responsibility.

For example, the amount of treasure that a cleric must donate to his deity may vary from campaign to campaign, but is a fairly universal responsibility. Likewise, a thief might be required to join the local thieves' guild, and to donate a portion of his gains to its coffers. It should not be necessary for you to record the donations at the end of every adventure; the players should make the calculations and inform you of the amounts involved. Of course, an occasional investigation by the guildmaster or high cleric may be used to keep tabs on the characters, but this can be made into an interesting game encounter, rather than a routine bookkeeping matter.

PCs are also responsible for acquiring the components needed for spellcasting. Once the PCs are aware of the costs of these items, they should be responsible for deducting the money spent and noting the newly gained components. Of course, if the components cannot be easily purchased, you must adjudicate the characters' actions. Indeed, missions such as a druid's quest for greater mistletoe can make for interesting short adventures, if you care to develop them slightly.

Controlling Henchmen, Hirelings, and other NPCs

As a rule, players should be allowed to control their own henchmen and hirelings, unless a situation arises where those NPCs are being taken advantage of. It is completely within your rights, of course, to step in and run these characters at any time. As a matter of convenience, however, you should only do this when it is necessary.

Taking over the actions of PC henchmen and hirelings is a technique you can use to impart information to the players, as well as to protect the henchmen or hirelings from being forced into unusually dangerous situations. If neither of these situations arise, however, the players are probably handling things well.

It is always a good idea to detail these NPCs as much as possible when they are generated. You will probably find that, once a player knows that his henchman is a selfish and whiny character, he will portray that NPC as selfish and whiny.

You may also find it useful to require your players to keep track of many NPCs and their usual locations. If they meet Olaf of the Black Tooth at the Shaggy Mammoth Inn, then have one of the players make a note of this. The next time they wish to visit Olaf, the players are responsible for remembering where he can be found.

It can even be useful to have your players aid you in stocking the campaign with NPCs. If you are designing a community, for example, you do not need to create a list of every inhabitant, his or her characteristics, and most likely locations. Instead, wait for the players to suggest the NPCs to you. If a player says "Where can I find a blacksmith?" you can assume that such an NPC exists, and simply create a persona for him. If the NPC who is sought is not necessarily present, assign a probability based on the size of the community and the availability of the NPC type involved, and roll the dice.

MAPPING YOUR SETTINGS

Most DMs have developed a fair degree of skill in drawing orthographic maps—the typical, top-view illustration of corridors, rooms, doorways, and other features of a dungeon or other setting. This type of map, like an architectural blueprint, shows exact relative sizes of all areas displayed, and is very useful for recording distance and direction.

If more than one level of elevation needs to be displayed, however, a separate map must be drawn for each level. Often, the exact position of an area that runs through two or more levels, such as a stairway or well shaft, is hard to picture when players or DMs use an assortment of orthographic maps.

An alternate technique known as perspective mapping is explained in this section. A DM willing to take the time to learn a few points, and to photocopy one or more of the perspective grids in the back of this book, will find that he can prepare detailed and attractive three-dimensional maps for multi-level settings above or below ground.

Basic Mapping Considerations

An effective map is one that communicates the necessary information to the people who will use it. This can often be accomplished in a few minutes with a pencil and some scratch paper.

However, if you have the time and interest to create attractive, easily legible maps that accurately convey a great deal of detail about your setting, a little more care is called for. Buy or borrow a few tools, such as a straightedge, compass, protractor, and a template or two. You may also wish to use a felt-tip or razor-point pen for drawing, since these make a line slightly thicker than the underlying grid. These mapping aids can greatly improve the appearance and legibility of your maps.

Perspective Mapping

Perspective mapping has advantages and disadvantages compared to standard orthographic mapping. On the positive side, a perspective map conveys the three-dimensional nature of a setting much more realistically than an orthogonal map. The position of each dungeon or castle level relative to all of the other levels is much clearer, and the connections between the levels are easier to see.

On the other hand, perspective mapping requires a little more knowledge of technique than orthographic mapping. Raised features on a perspective map, such as staircases, spiral stairways, platforms, ramps, and any other three-dimensional details will obscure the view of areas immediately behind them. Also, the smaller squares to the rear of a perspective grid tend to cramp your design if used for areas that need careful attention to detail. Finally, a perspective map takes more time to draw than an orthographic map.

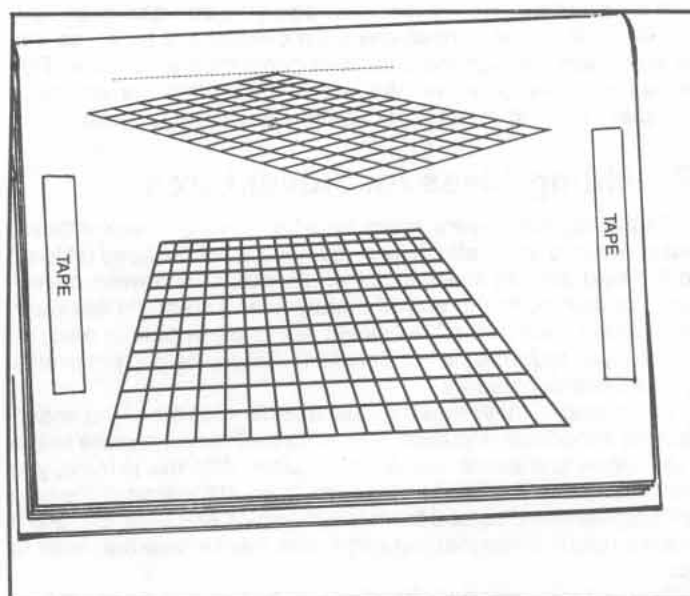
However, if you have the time and don't mind learning a few relatively simple techniques, you can create maps that communicate much more information than simply how big a room is, or whether the door is in the north or the east wall.

There are two easy ways to start a perspective map. The first

step in each case is to select a grid from those provided in this book. Pick the grid that best displays the details of your design, whether it be a castle, tower, dungeon, or cavern. For example, a solid, square castle or dungeon requires one of the square grids that give approximately equal dimensions of depth and width. A longer, narrower grid works better for a cavern or wall.

The first mapping technique requires you to make a few photocopies of the grid. Permission is hereby granted for the photocopying of these grids for personal use only. Make one copy for each floor or level you need, and consider making a few extras if you want to do a really careful job. A photocopier that makes enlarged copies can be very helpful.

The second technique requires you to buy a tablet of tracing paper. You can then trace portions of the grid on the tracing paper and draw in the map details. You can try to hold the tracing paper in place over the grid by hand, or you can tape it into place. Take precautions before taping, however, or the tape will eventually tear the pages of the book or lift up the print. This will not happen if the tape holding your tracing paper is taped to transparent tape instead of the actual book page. By permanently placing two short pieces of clear tape on each grid page, as in the diagram, you provide places to fasten the tracing paper without ruining the page.



Selecting a Grid

Before you select a grid for your map, you should think about the overall shape of the area to be designed. Select a grid that best matches this overall shape, whether it is long and narrow or relatively square. Because raised details such as stairways obscure the areas behind them, design such areas so that they do not need much detail. For example, directly behind a tall stairway you might place a large, empty room or even an expanse of solid rock.

Also, because the squares at the rear of the grid are much smaller than those in the front, try to design your most important and detailed areas toward the front of the grid. If you like using raised platforms in your designs, place those platforms so that the lower ones are in the front and the higher ones toward the rear. It might help to imagine that you are designing a set for a stage play, and you want the audience to be able to see all of the acting area.

Selecting a Starting Point

Start the design as close to the front of the grid as possible. Because the large squares in the front allow for greater detail, they should be used for the most intricate or important areas. This does not mean that the entrance to the lair, dungeon, etc., has to be placed near the front of the grid—you might instead have characters enter the area far to the rear, and work their way into the important areas you have detailed near the front.

If your design has several levels, you should designate a control square. This is a single square on the grid, located roughly in the center of the area being designed. It is a good idea to center the control square under the highest tower or the midpoint of the top level of your design. The control square allows you to line up the grids for each level, since the control square on each level is directly above or below the control squares on the adjacent levels.

If each level of your design is approximately the same shape, the control square should be the same square on each of your grids. If you have made several photocopies of the grid, simply hold them up to a light and make sure all the control squares line up. If you are using tracing paper to copy the grid, place a pencil mark in the control square of the grid you have chosen in the book, and then mark that square on your traced copies.

Drawing the Map

Once you have established the grid, drawing a perspective map is very much like drawing an orthographic map. The biggest

difference is that the squares making up the map grid are not true squares. It may take a little getting used to, but with practice you should be able to make perspective maps as easily as the flat-view variety.

You might find it advantageous to draw the outer limit of the design first. This helps you visualize the overall structure, and also makes it easier to line up the maps of the various levels. Alternatively, you might start with a huge staircase or centrally located atrium that includes areas on several levels.

Mapping Symbols

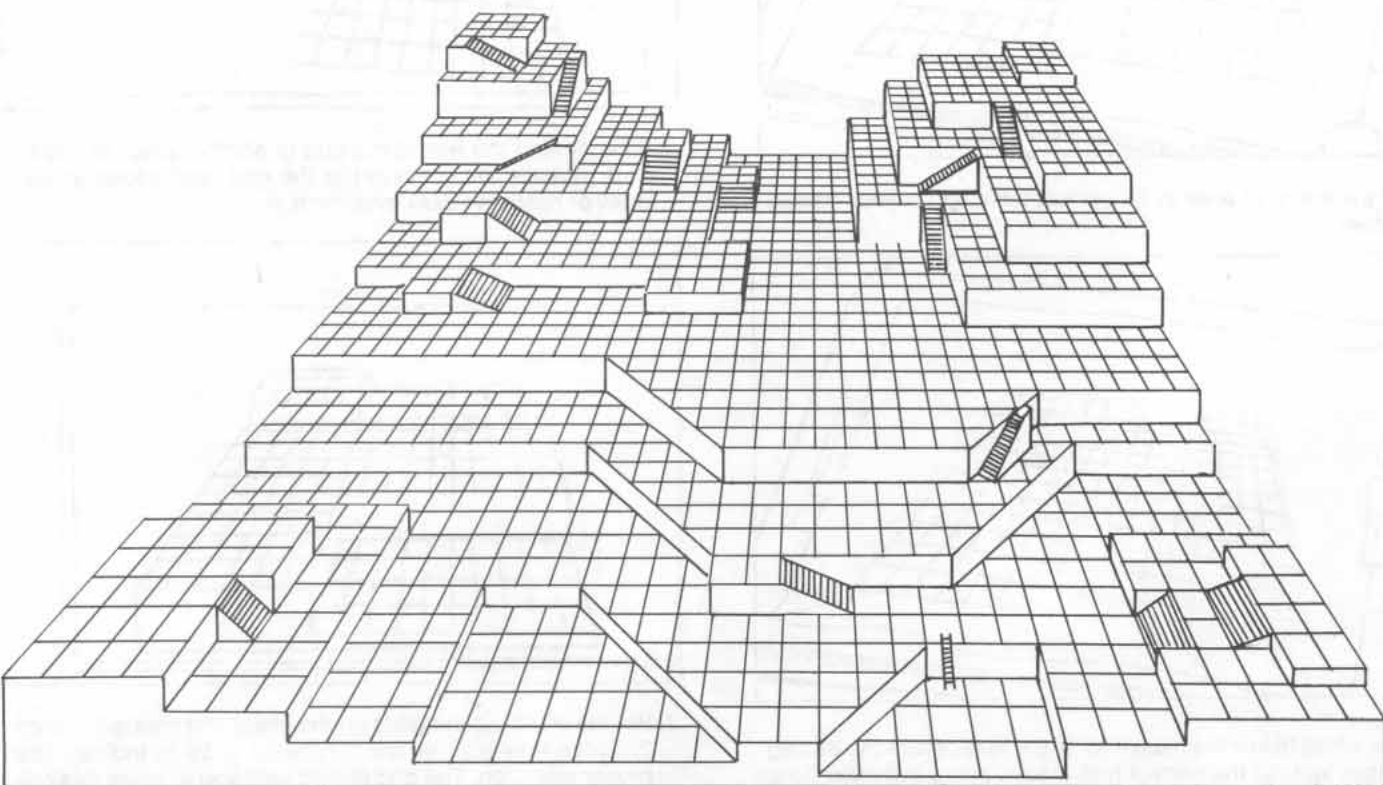
The symbols that work on an orthographic map can usually be translated directly onto a perspective map. Doors, trapdoors, curtains, furniture, and many other symbols can be used just as you have always used them. The symbols for certain three-dimensional objects must be changed slightly, however, since the map must portray these objects vertically as well as horizontally.

Numerous mapping symbols for these three-dimensional objects have been printed beside the map grids. You can photocopy, trace, copy, or cut and paste these onto your maps. Several different styles of symbology are presented, from very simple types to more elaborate and artistic designs. You may find it easiest to use the more basic symbols when you start out, but you will probably be surprised at how quickly you develop the necessary familiarity to deal with all of these designs.

Splitting the Grid

When an area is designed, and particularly in the case of an underground environment that does not rest on level ground, you may wish to mimic minor changes in altitude by cutting your grid into the appropriate pieces and shifting the individual pieces up or down slightly.

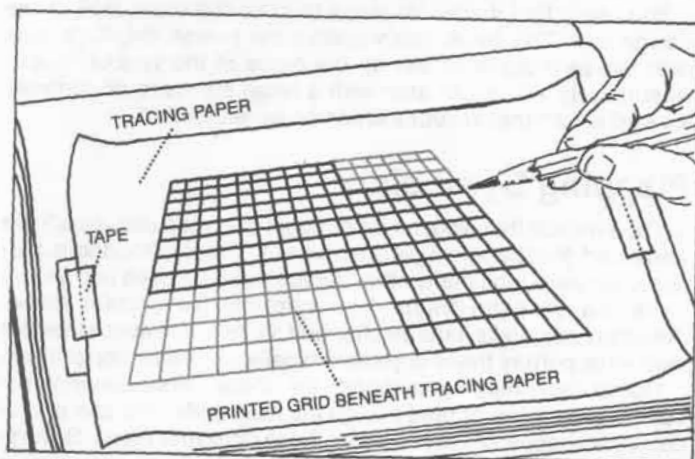
Different techniques for splitting the grid are described in step-by-step fashion below.



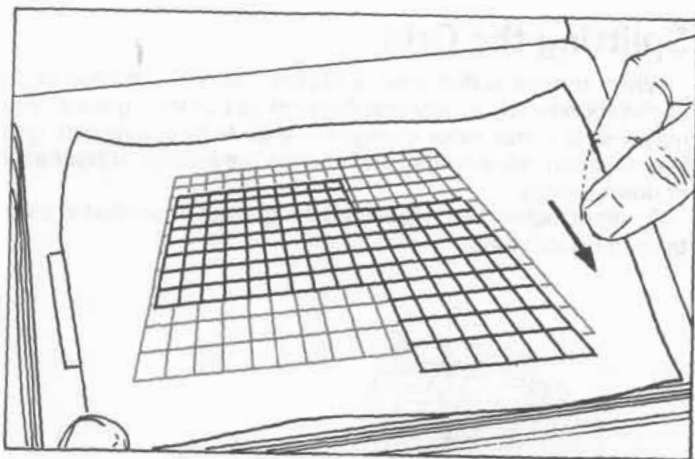
MAPPING

Technique 1: Tracing Method

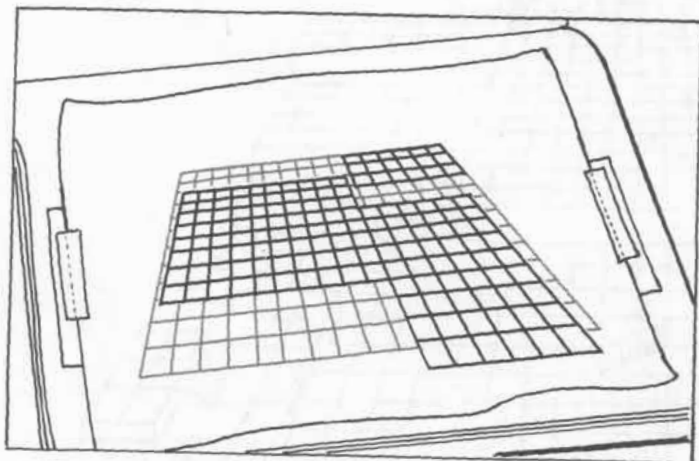
1. Draw the main floor grid on tracing paper, except for the areas to be raised or lowered.



2. Look at the grid through the tracing paper and find the grid area you want to elevate. Pull the tracing paper down until the grid area appears to be at the correct (scaled) height above the main floor.

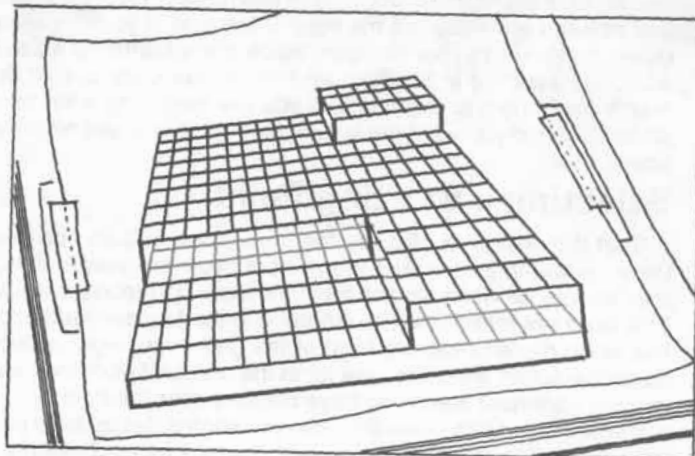


3. Draw this grid area in its correct location on your tracing paper.



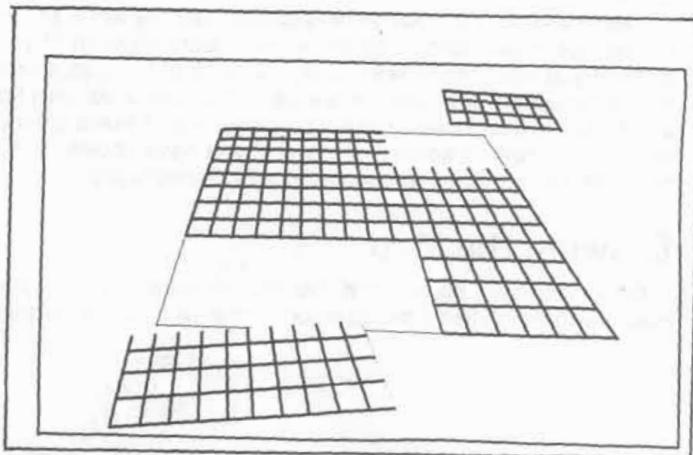
4. For areas below the main floor of the level, move the tracing paper up until the correct grid area is below the main floor.

Trace this grid onto your paper in its proper location.

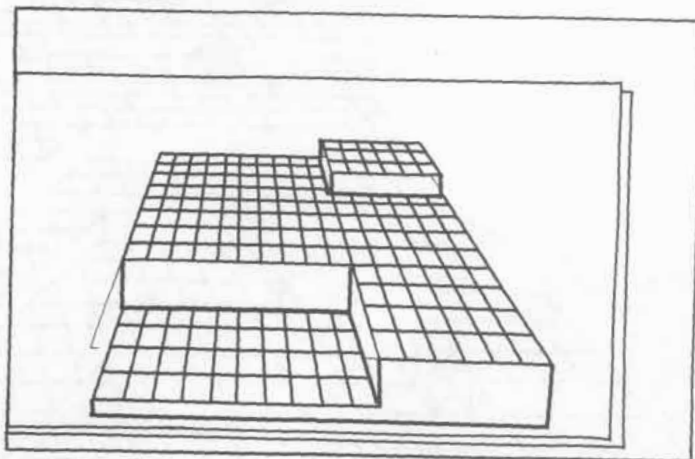


Technique 2: Photocopy Method

1. From a photocopy of the grid you are using, cut out all of the grid areas that need to be raised or lowered.



2. Glue or tape the rest of the grid to another piece of paper. This protects the holes cut in the grid, and allows you to draw or paste symbols over them.



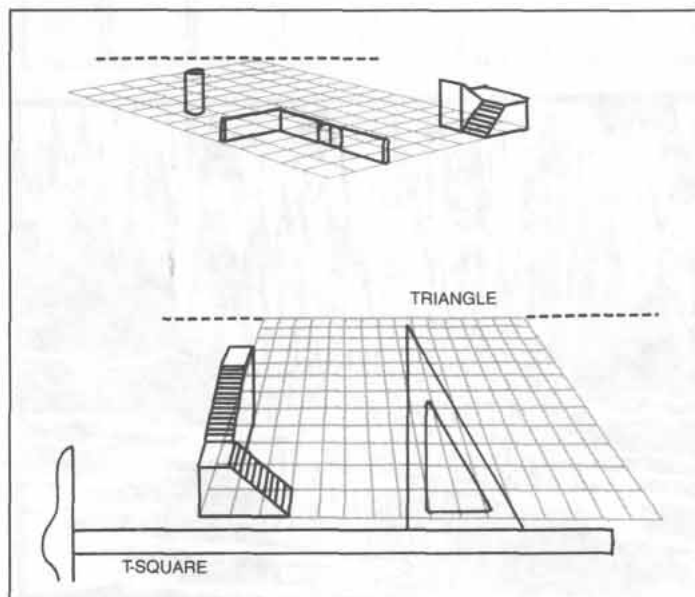
3. Put the small cut-out grids on the sheet you created in Step 2. Judge how high or low they need to be to indicate the proper elevation. The grid should help you to make this cal-

ulation. For example, if each square equals 10 feet, and you want the platform to be 20 feet above the main floor, simply measure a nearby square and put the platform grid twice that distance above the cut line.

Horizon Lines

Each sample grid in this book includes a *horizon line*. The purpose of the horizon line is to help you to view the grid correctly. In order to correctly orient the grid, turn it so that the horizon line is horizontal, or level.

The horizon line can also help you to draw vertical lines on the grid. Pillars, staircases, ladders, and other primarily vertical objects should not look as if they are about to topple. With a T-square, or with a triangle that includes a 90-degree angle, you can use the horizon line to accurately draw vertical lines. If you wish to draw a vertical line, simply make sure that it is perpendicular to the horizon line.



GEOMORPHIC MAPPING

In a typical campaign world, the DM does not have time to prepare detailed maps of all the regions that the PCs are likely to visit. The problem can sometimes be alleviated by mapping only those areas that will be needed in the immediate future, but since the PCs' actions are often unpredictable, it can be difficult to determine which way they will go next.

Geomorphic maps, which are particularly applicable to underground settings, present another solution to the problem. Geomorphic maps are a series of maps created in the same shape and size, with standardized entry and exit points at various locations around each map's edges. A geomorphic map can be altered so that any one of its edges abuts a neighboring geomorph; consequently, a tremendous number of combinations can be created. The advantage to geomorphic mapping is that you do not have to map out every square foot of a massive region. Instead, you use a combination of geomorphs to create the areas needed. Areas that are particularly well-suited for geomorphic mapping include most underground settings, and large cities or sprawling fortresses on the surface.

A single geomorphic map section should not be designed to portray a whole setting. Ideally each section should create only a small part of the entire area. Then you can assemble the

geomorphs like the pieces of a puzzle, and eventually design an entire, vast area, one section at a time. Also, a geomorphic block may contain several separate adventure areas; you need not use all of these areas.

Geomorphic maps can be created as squares, equilateral triangles, or hexagons. Squares are the easiest to use. Whatever your choice, all of your geomorphs must be drawn in the same shape so that they will fit together. After you determine this shape, you need to decide what the scale of your maps will be, and how many possible points of connection you will have on each side.

Triangular geomorphs are limited in that each map has only three possible orientations when placed into a design. Thus, the number of geomorphs needed is larger than it is with the other types, unless you want to repeat the patterns a great deal. Hexagonal geomorphs have the greatest number of potential positions, but are also slightly more complicated to draw. Many mappers consider the square geomorph to combine the best features of all types.

When you begin to design your geomorphs, plan how many possible connections you wish to have between each map section and its neighbors. This does not mean that each geomorph connection must lead to a through-way, but it allows you to provide for plenty of route options.

The scale of your maps should influence the number of connecting locations you have on each geomorph. If each map section represents a 60 x 60-foot square, you will probably want no more than two, and perhaps only one, potential connection per side. If the geomorph represents a square mile of an underground realm, you may wish to have as many as six or eight potential connections on each side of the map.

The various types of geomorphs, and notations for marking the access and egress points on each, are diagrammed here.

The connections between maps must occur at a standardized location on the sides of each geomorph. For example, you might have a connection occur in the exact center of each side, or include a pair of connections that are each 1/3 of the distance in from the edge of the geomorph. Measure your distances carefully, since this determines whether or not your maps line up properly. Whatever pattern of connections you use must be symmetrical to both left and right, or you will not be able to line up the map sections.

Once you have established the basic parameters of your geomorphs, you can begin to draw as many maps as you have the time and interest to do. Each map should be drawn to the correct shape and scale.

Although you do not need to make sure that every possible connection on each geomorph leads somewhere (i.e., does not dead-end), at least 75% of them should provide a means of entry into another map section. A greater number of dead-ends dramatically increases your chances of enclosing whole sections of your dungeon and making entry and exit almost impossible.

Using Geomorphs

Once you have a collection of geomorphs, you are ready to randomly generate an area of potentially huge proportions. Of course, this procedure does not have to be random—if you feel that a certain map section would be ideal for a particular location in your campaign setting, by all means put it there. For the most part, however, you can generate the overall map of your setting by making a few die rolls and varying the placement of your geomorphs.

You might start by numbering each geomorph and rolling dice to determine the placement of each geomorph. To begin mapping, roll a die and start with the geomorph with that number on it.

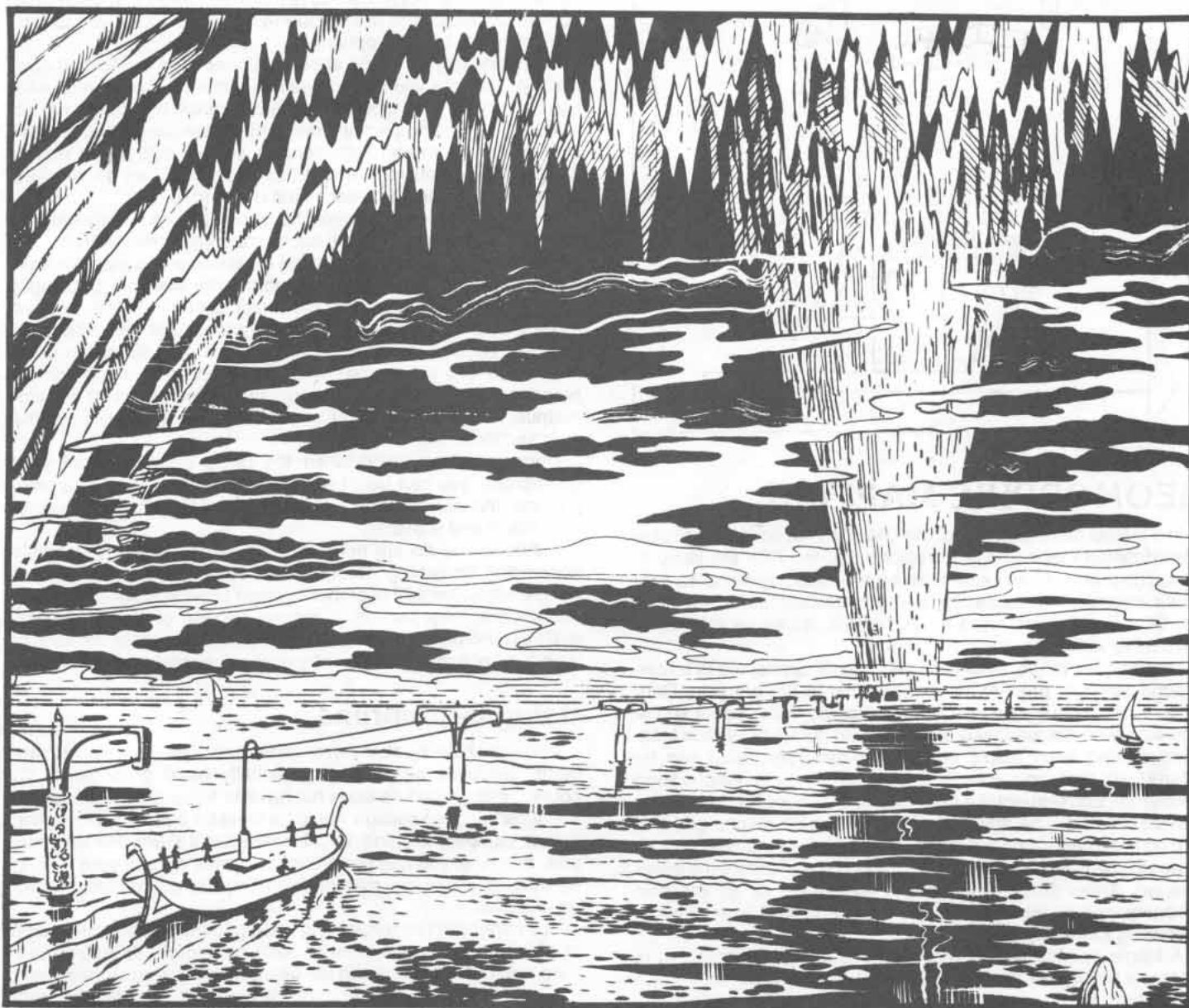
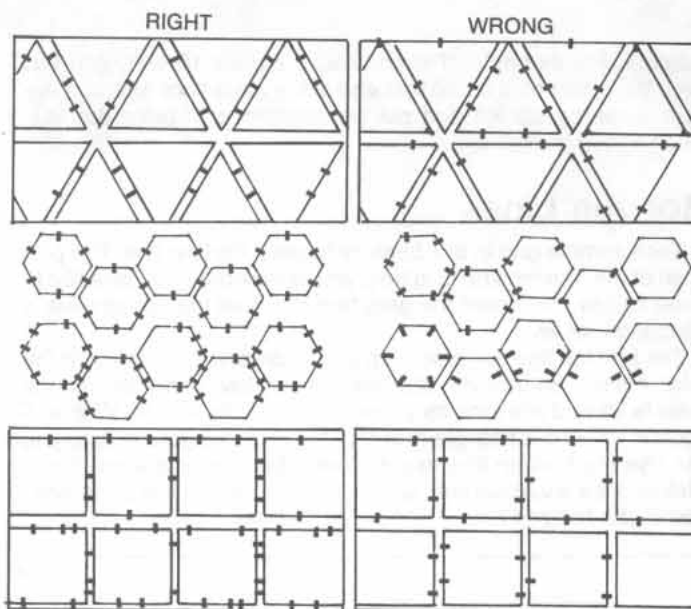
A geomorphic map section can be placed in any one of a num-

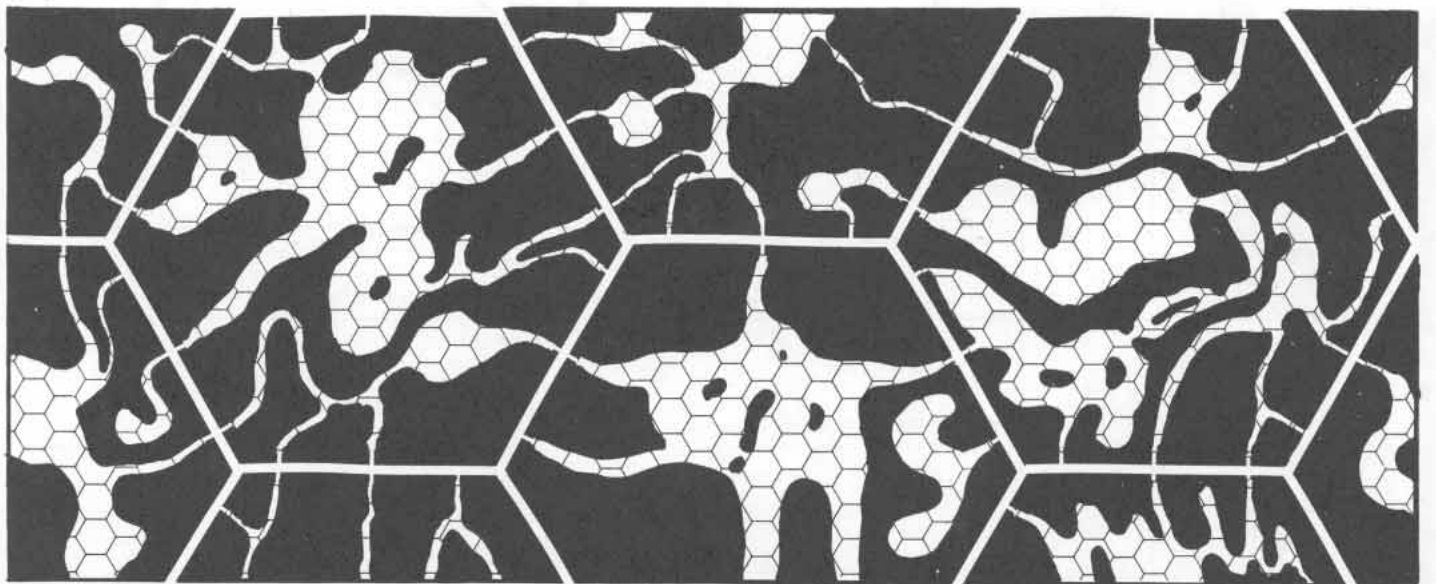
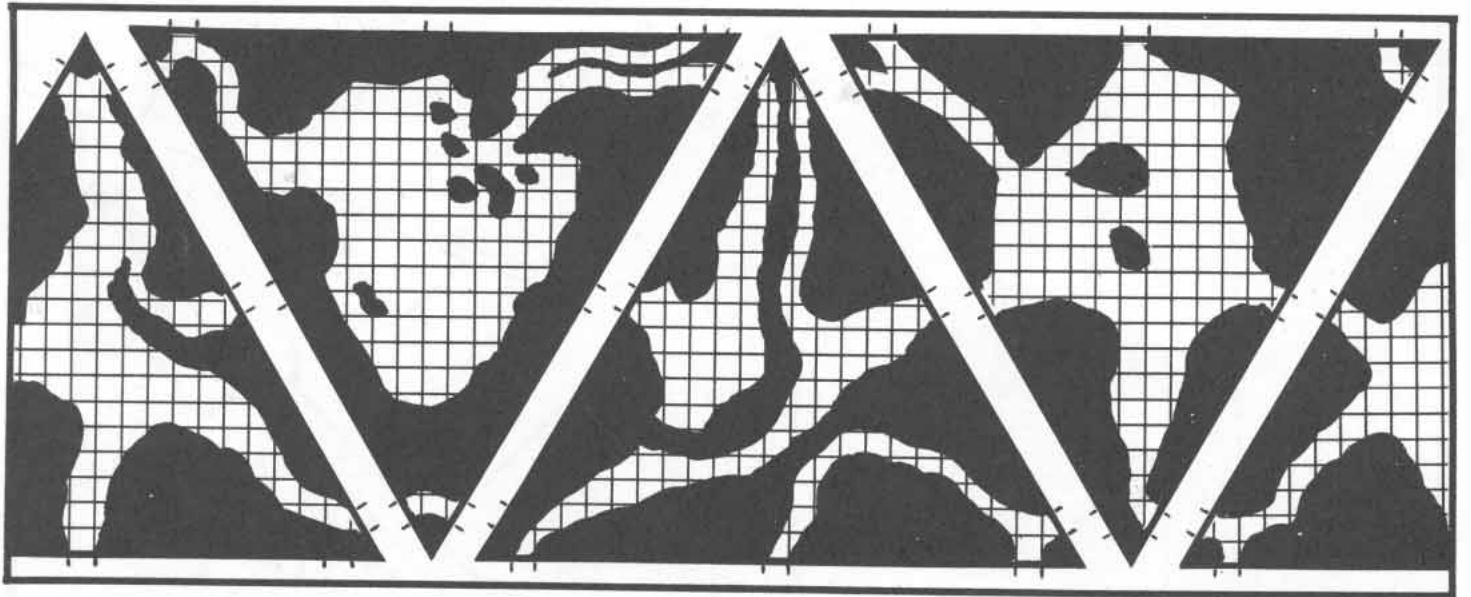
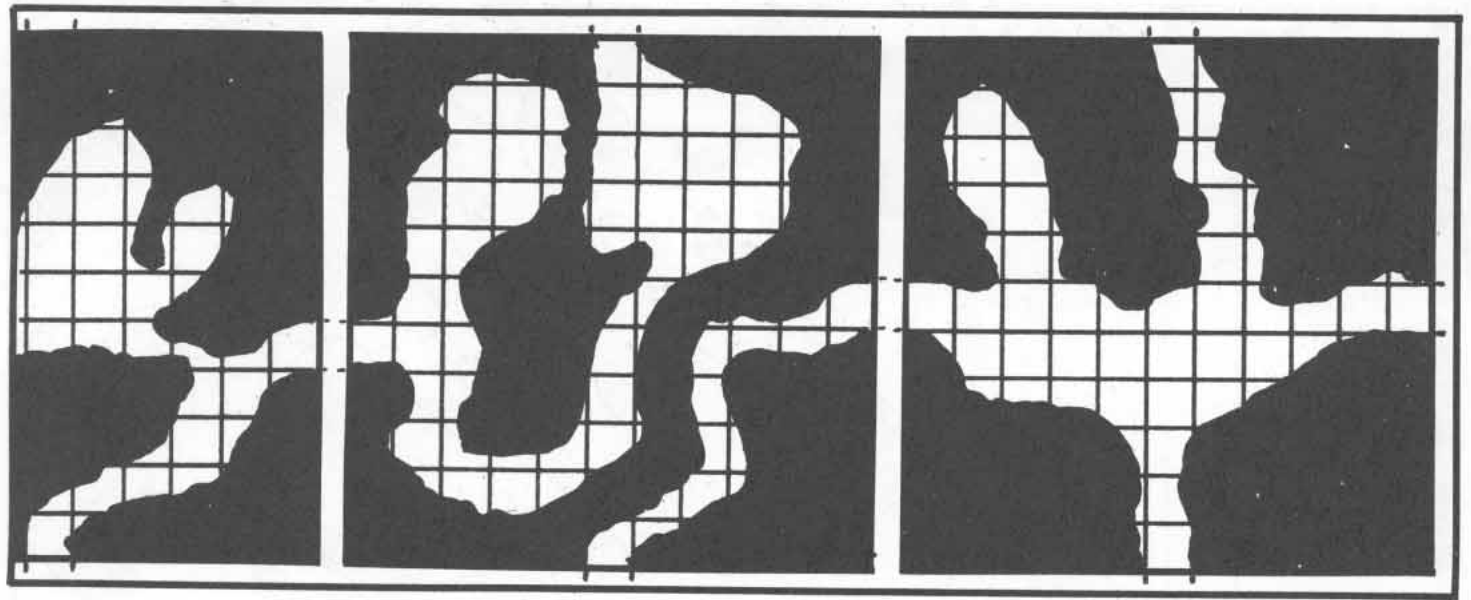
MAPPING

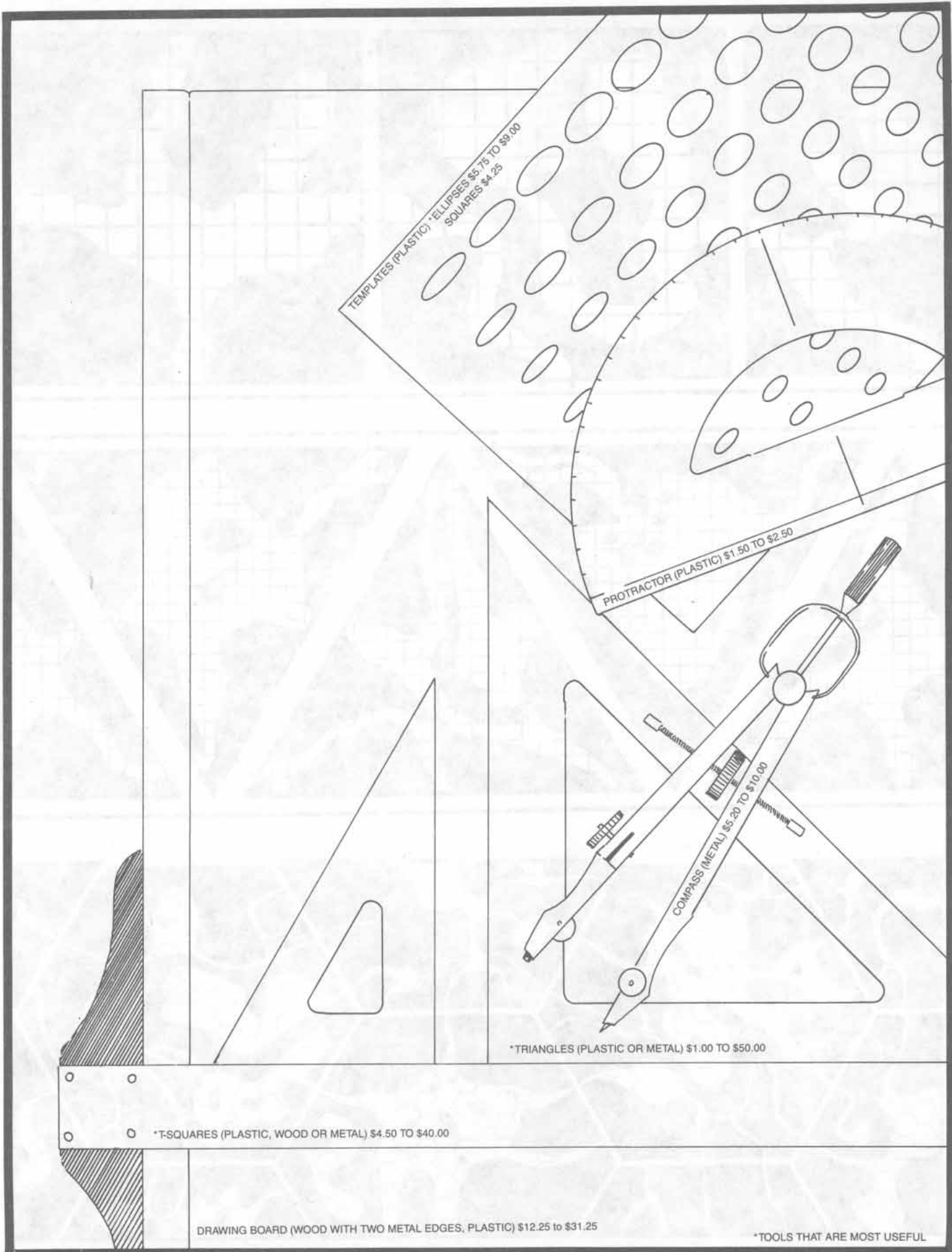
ber of positions. The number of positions equals the number of sides of each map section, so a triangular section can be placed in one of three positions, a square in one of four positions, etc. Roll a die (a d3, d4, or d6, as appropriate) to determine which face of the geomorph is north.

Once you have placed a geomorph, treat it as a normal part of your setting map. Allow the PCs to explore it and map it as they normally would. If they reach an edge of the map section, simply roll a die again to pick a new geomorph to add to that edge, and then roll to determine that geomorph's orientation (which side is north). If a connection between the two matches up, as it usually will, the PCs can proceed without learning that they have moved onto another map section. If the connections do not line up, the party simply wanders into a dead end, and has to find another path.

By using a variety of geomorphs and making sure that they are placed in many different orientations, you can create a huge region of well-mapped terrain, and your players will never know that they are passing through many of the same map sections that they have previously explored.







*TOOLS THAT ARE MOST USEFUL

COMPILED TABLES

Table 1: SWIMMING EFFECTS OF ENCUMBRANCE

Character's Encumbrance	Endurance	Speed	Diving	Surfacing
Unencumbered	Doubled	Doubled	Normal	Doubled
Normal Gear	Normal	Normal	Normal	Normal
Heavy Gear	Halved	Halved	Doubled	Halved
Very Hvy Gear	Quartered	Quartered	Tripled	Quartered
Encumbered *	None	None	Tripled	None

* An encumbered character cannot move through the water under his own power. If he enters the water, he will sink.

Table 2: RATES OF CLIMBING

Surface Climbed	Condition of Surface		
	Nonslippery	Slightly slippery	Slippery
Very smooth *	6 ft/r	3 ft/r	0 ft/r
Smooth, cracked *	12 ft/r	6 ft/r	3 ft/r
Rough *	18 ft/r	9 ft/r	6 ft/r
Rough, ledges	24 ft/r	12 ft/r	9 ft/r
Ice wall	—	—	6 ft/r
Pole	36 ft/r	24 ft/r	12 ft/r
Tree	60 ft/r	40 ft/r	20 ft/r
Sloping Wall	60 ft/r	30 ft/r	15 ft/r
Rope and Wall	40 ft/r	30 ft/r	20 ft/r

* These surfaces can be climbed only by thieves.

Table 3: GRAPPLING SUCCESS

Grapple Target	Miss	Catch and Slip	Catch
Stone Parapet	01-72	73-78	79-00
Stone Wall Top	01-83	84-89	90-00
Tree Branches	01-66	67-70	71-00
Rocky Ledge	01-88	89-93	94-00
Wooden Wall	01-70	71-74	75-00

Table 4: BROAD JUMPING

Level of Jumping Character	Standing Broad Jump	Running Broad Jump
1-6	1d4 + 1 ft	1d4 + 5 ft
7-9	1d4 + 2 ft	1d4 + 6 ft
10-12	1d6 + 2 ft	1d6 + 5 ft
13-15	1d6 + 3 ft	1d6 + 6 ft
16-18	1d6 + 4 ft	1d6 + 9 ft
19-22	1d6 + 5 ft	1d6 + 12 ft
23 +	1d6 + 6 ft	1d6 + 15 ft

Table 5: CROSSING WITH A GRAPPLE

Grapple Target	Miss	Catch and Slip	Catch
Bare Stone Walls/Floor	01-82	83-89	90-00
Cave Formations	01-75	76-80	81-00
Ruined Foundation	01-66	67-71	72-00

Table 6: THROWN LOOP RANGES

Character Level	Maximum Range (in feet)
1-4	40
5-8	50
9-12	60
13-16	75
17 +	90

Table 7: MINIMUM PASSAGEWAY SIZES

Character Race	Tunnel Width	Tunnel Height
Human	2 ft	1 ft
Half-orc	2 ft	1 1/3 ft
Dwarf	2 ft	1 ft
Gnome	1 1/2 ft	3/4 ft
Elf	1 1/2 ft	3/4 ft
Halfling	1 ft	2/3 ft

Table 8: ARMOR EFFECTS ON CHARACTER WIDTH

Armor Type	Increase in Diameter
Leather armor	none
Padded armor	1/6 ft
Studded leather	1/6 ft
Scale mail	1/4 ft
Ring mail	1/6 ft
Chain mail	1/4 ft
Splint mail	1/4 ft
Banded mail	1/2 ft
Plate mail	2/3 ft
Field plate	5/6 ft
Full plate armor	1 ft

Table 9: COURSE CHANGES IN DARKNESS

D12 Roll	Character's Course Change
1-3	None, continue straight ahead
4-5	45 degrees right
6-7	45 degrees left
8	60 degrees right
9	60 degrees left
10	90 degrees right
11	90 degrees left
12	135 degrees (1-3 right, 4-6 left)

Table 15: ODOR DETECTION

Source of Odor	Distance from Character			
	1-120 ft	121-360 ft	361-1000 ft	1000-5000 ft
Fires:				
small	0	-4	-8	—
large	+2	0	-4	-8
oil	+4	+2	0	-4
conflagration	+8	+4	+2	0
Odorous gas	+4	+2	0	-4
Creatures:				
strong-odor	0	-2	-6	-10
mild-odor	-2	-6	-10	—
no-odor	-6	-10	—	—
Cooking food	+2	0	-2	-6

Table 16: WIND EFFECTS ON ODORS

Wind Force	Direction of Source		
	Upwind	Crosswind	Downwind
Strong	Normal	1/2	No detection
Medium	Double	1/2	1/10
Light	Double	Normal	1/4

COMPILED TABLES

Table 17: CAVE-IN LOCATION

D100 Roll	Location
01	On top of PCs
02-03	Immediately in front of PCs
04-05	Immediately behind PCs
06-10	In front of PCs, within hearing range
11-15	Behind PCs, within hearing range
16-55	Well behind PCs, out of hearing range
56-95	Well in front of PCs, out of hearing range
96-00	At entrance PCs used to get underground

Table 18: CAVE-IN CHAIN REACTION

Original Location of Cave-In	Area Above Cave-in	Area Next to Cave-In
Ceiling	48%	32%
Wall	32%	12%
Ledge/bridge	5%	12%
Support Column	80%	4%

Table 19: UNDERGROUND STRUCTURE DEFENSIVE POINT VALUE

Formation or Structure	Defensive Point Value
Room, 10-ft tube	50
Room, 20-ft cube	90
Column, 3-ft diameter	10
Column, 10-ft diameter	100
Wall, 10-ft square	20
Bridge, small wooden	12
Bridge, small stone	40
Bridge, large stone	80
Rock ledge, per 1-ft wide	10
Ceiling, small cavern	100
Ceiling, large cavern	250
Stalactite, small	8
Stalactite, large	20

Table 20: UNSTEADY NPC REACTIONS

D100 Roll	Reaction
01-20	Character runs screaming toward the surface to the limits of his Endurance
21-55	Character attacks nearby PC
56-85	Character attempts to sneak away quietly, as soon as possible
86-00	Character freezes in place, not reacting or moving

Table 21: BOAT MOVEMENT RATES *

Type of Boat	Normal Oar/Paddle	Maximum** Oar/Paddle
Small rowboat	90 ft/r	120 ft/r
Coracle	30 ft/r	45 ft/r
Large rowboat	45 ft/r	60 ft/r
Small barge/raft	30 ft/r	45 ft/r
Large barge	20 ft/r	30 ft/r
Small canoe	120 ft/r	180 ft/r
Large canoe	90 ft/r	120 ft/r
Kayak	120 ft/r	180 ft/r

* Subject to the speed and direction of water flow.

Table 22: MOVEMENT FROM A STANDSTILL POSITION

Type of Boat	To Normal Speed	To Maximum Speed
Small rowboat	1 round	3 rounds
Coracle	1 round	3 rounds
Large rowboat	2 rounds	5 rounds
Small barge/raft	2 rounds	6 rounds
Large barge	5 rounds	10 rounds
Small canoe	1 round	2 rounds
Large canoe	1 round	3 rounds
Kayak	1 round	2 rounds

Table 23: BOAT DRAUGHT AND CEILINGS

Type of Boat	Depth Required	Ceiling Required
Small rowboat	1/2 ft	2 ft
Coracle	1/2 ft	3 ft
Large rowboat	3/4 ft	3 ft
Small barge/raft	3/4 ft	3 ft
Large barge	1 ft	4 ft
Small canoe	1/4 ft	1 1/2 ft
Large canoe	1/3 ft	2 ft
Kayak	1/4 ft	1 1/2 ft

Table 24: NONPROFICIENCY PENALTIES FOR BOAT USE

Type of Boat	Movement Modifier	Capsize Chance
Small Rowboat	-30 ft/r	5%
Coracle	-15 ft/r	10%
Large Rowboat	-15 ft/r	0
Small barge/raft	-10 ft/r	0
Large Barge	-5 ft/r	0
Small canoe	-60 ft/r	20%
Large canoe	-30 ft/r	10%
Kayak	-60 ft/r	25%

Table 25: COLLISION PROBABILITY

Width of Waterway	Placid*	Medium*	Rapid*
Narrow	1%/10%	5%/20%	20%/40%
Average	0%/5%	2%/10%	10%/20%
Wide	0%/1%	0%/4%	4%/8%

* Number before slash is for a character with boating proficiency; number after slash is for a character without boating proficiency.

Table 26: BOAT DAMAGE

Percent Damage	Effects
01-05	Boat leaks slightly; will founder after 1d6 hours
06-10	Water pours in from a small hole; boat founders in 2d4 + 2 turns
11-20	Water pours in from 2d4 small holes; boat founders in 2d4 turns
21-45	Large holes in hull, boat founders in 1d6 rounds
46-60	Hull splits open and boat founders immediately
61-80	Boat breaks into 1d6 pieces
81-98	Boat splinters into many small pieces
99-00	No damage!

Table 27: MINING RATES •

Race of Miner	Type of Rock		
	Very Soft	Soft	Hard
Gnoll, Halfling, Human	75	50	25
Gnome, Kobold	80	60	30
Goblin, Orc	85	65	30
Dwarf, Hobgoblin	90	70	35
Ogre	150	100	50
Hill Giant	250	150	75
Fire Giant, Frost Giant	300	200	100
Stone Giant	500	350	175

* Rates are in cubic feet/miner/eight hours.

Table 28: MINERAL VEIN DIRECTION

D4 Roll	Vein Runs
1	North-South
2	East-West
3	Northeast-Southwest
4	Northwest-Southeast

Table 29: VEIN PATH ALTERATIONS

D6 Roll	Change
1	Steep descent
2	Shallow descent
3	Curves right (10-60 degrees)
4	Curves left (10-60 degrees)
5-6	Continues straight
7	Shallow ascent
8	Steep ascent

Table 30: MINING PRODUCTS

D100 Roll	Product of Mine
01-30	Copper
31-40	Tin
41-66	Lead
67-84	Iron
85-92	Silver
93-97	Gold
98	Platinum
99	Mithril *
00	Gemstones **

* This indicates the possibility of mithril, the material needed to create elven chain mail. A mithril mine can only exist deep under the earth in the most solid of bedrock. If the locale of the mine is in such an area, the player rolls 1d10 and compares the result to Table 31: Mithril Check; otherwise, reroll on Mining Products Table.

** The player must roll on Table 32: Gemstones to determine what type of stones the mine yields.

Table 31: MITHRIL CHECK

D10 Roll	Metal Discovered
1-5	Silver (highest quality)
6-8	Gold (highest quality)
9	Platinum (highest quality)
10	Mithril

Table 32: GEMSTONES

D100 Roll	Type of Stone
01-08	Bloodstone
09-18	Onyx
19-24	Turquoise
25-30	Agate
31-36	Aquamarine
37-42	Garnet
43-48	Jade
49-54	Alexandrite
55-60	Amethyst
61-66	Topaz
67-72	Jet
73-77	Opal
78-82	Ruby
83-87	Sapphire
88-92	Diamond
93-96	Emerald
97-99	Roll twice on this table
00	Roll three times on this table

Table 33: ORE QUALITY

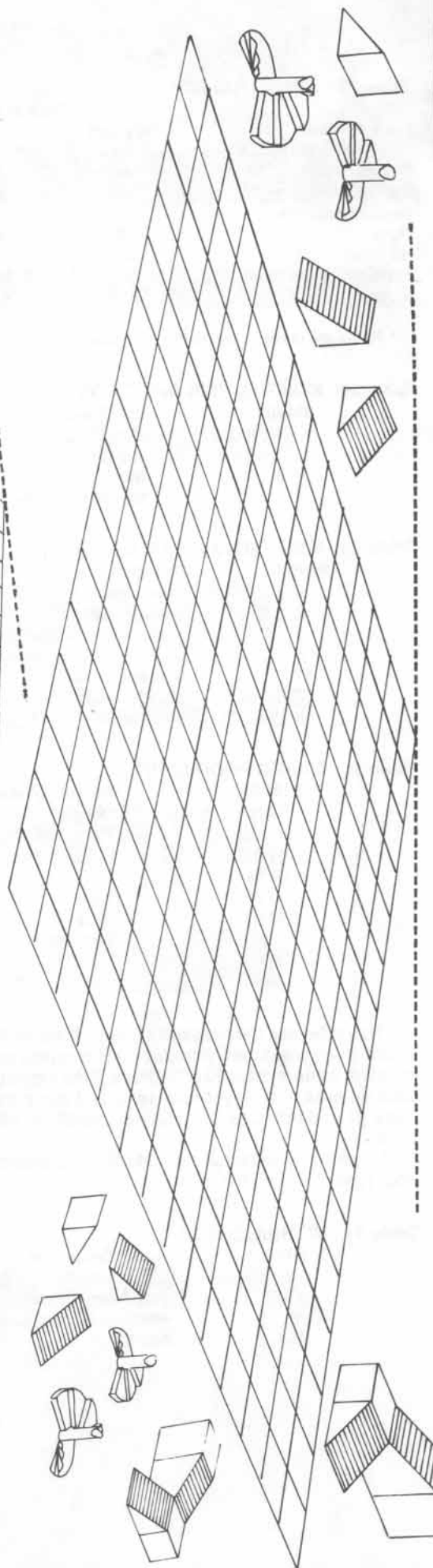
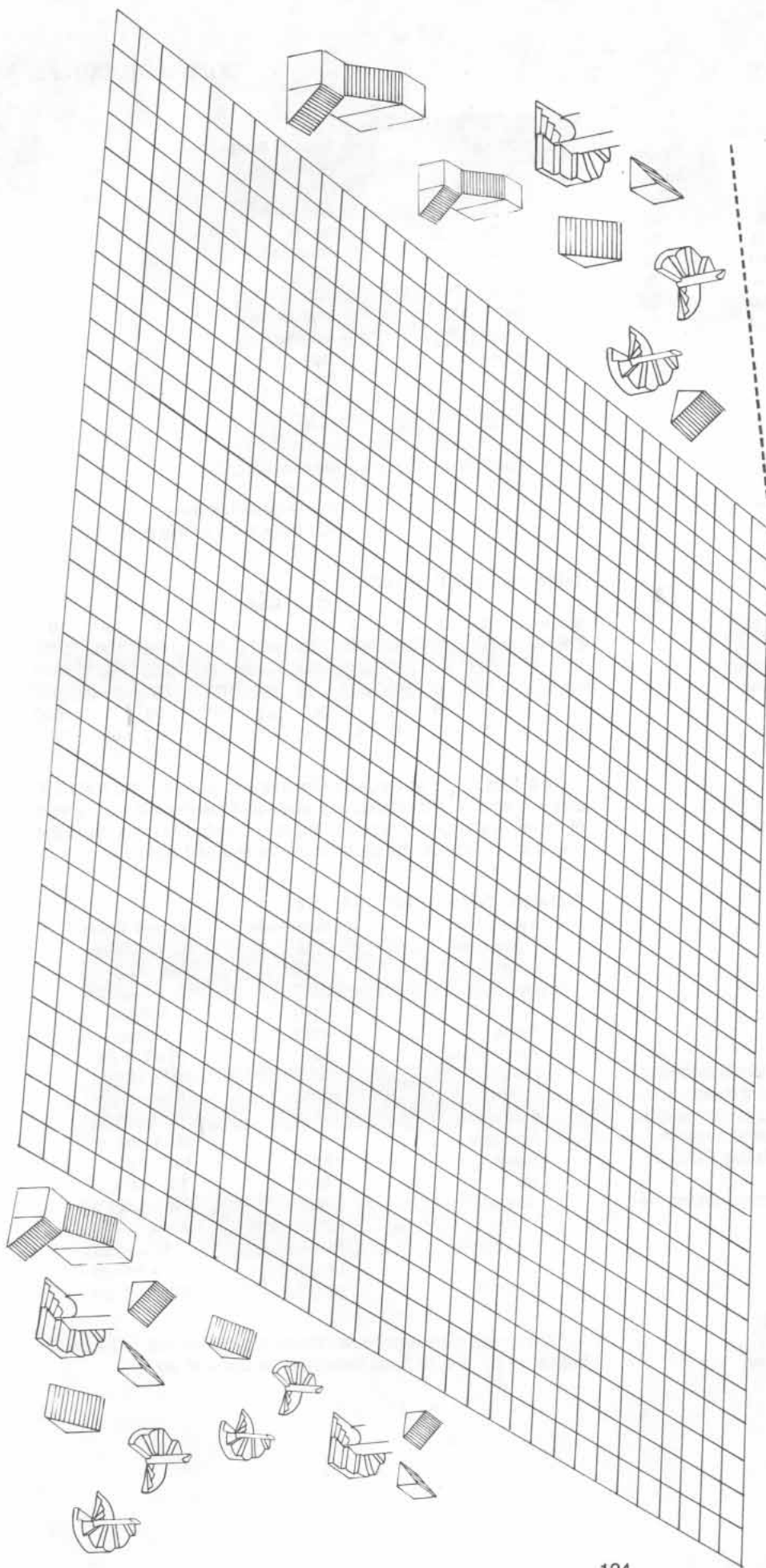
Type of Metal	D10 Roll									
	1	2	3	4	5	6	7	8	9	10*
Copper	100	200	250	300	350	400	500	750	1000	2000
Iron	200	300	500	700	900	1200	1600	2000	3000	4000
Silver	25	50	100	200	300	400	500	750	1000	2000
Gold	10	25	50	100	200	300	400	500	750	1000
Platinum	5	10	20	40	75	100	250	400	800	1000

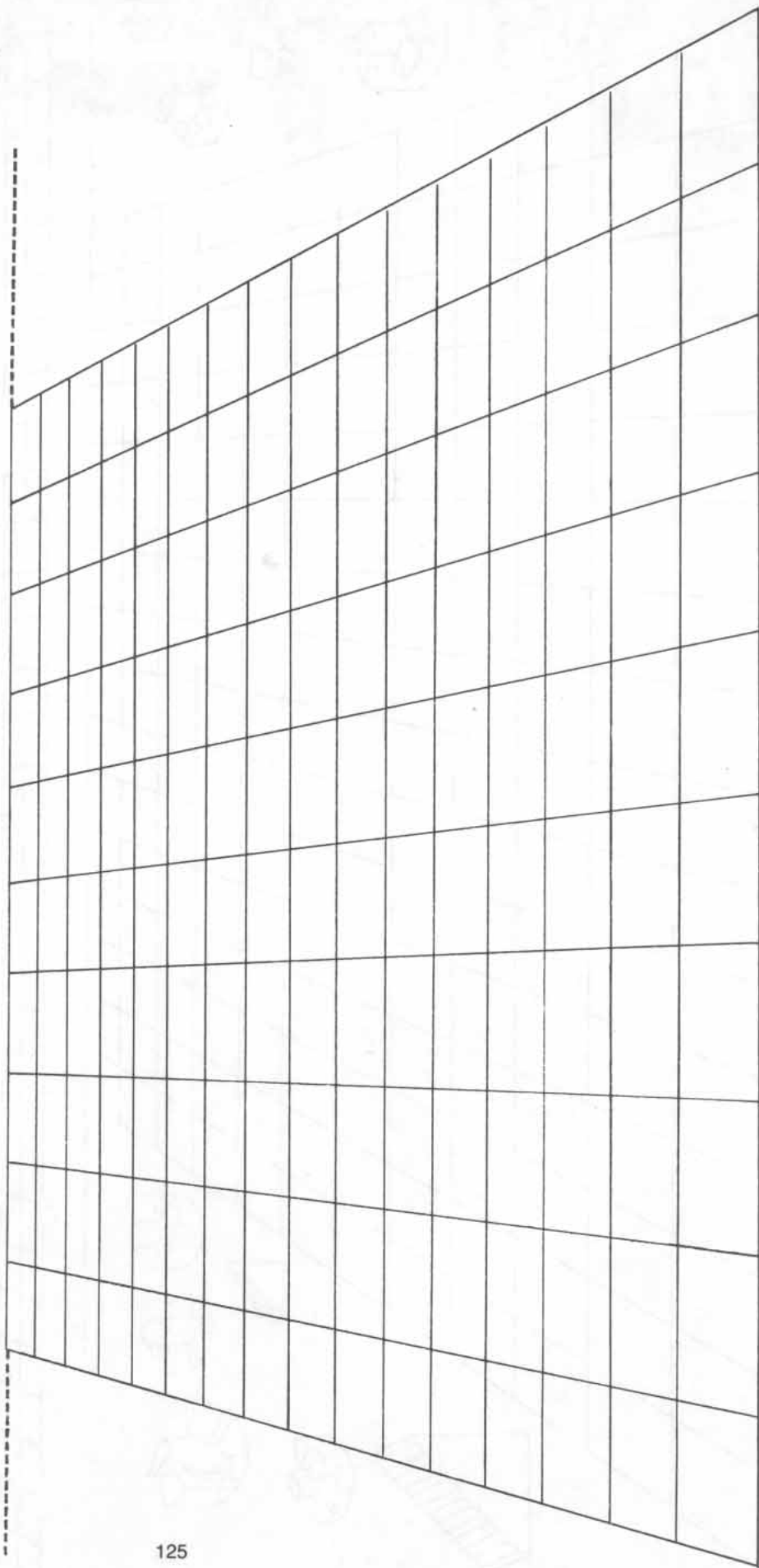
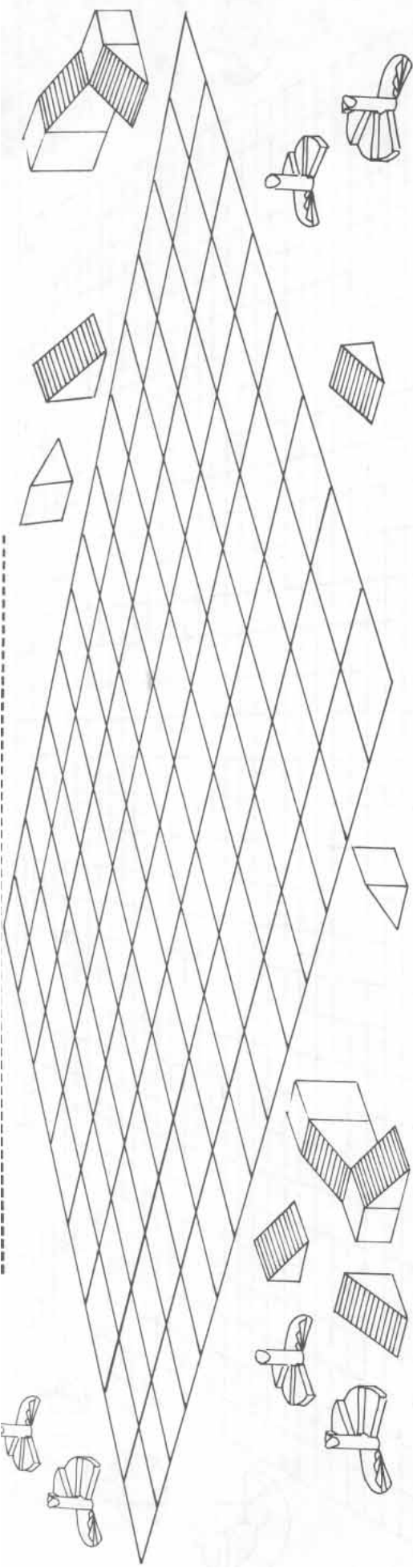
* If a 10 is rolled when determining the metal's quality, roll 1d10 again. If another 10 results, the product of the mine is a pure vein of metal, and requires no smelting to separate the metal from the ore. If a 1-9 results, the metal must be smelted normally.

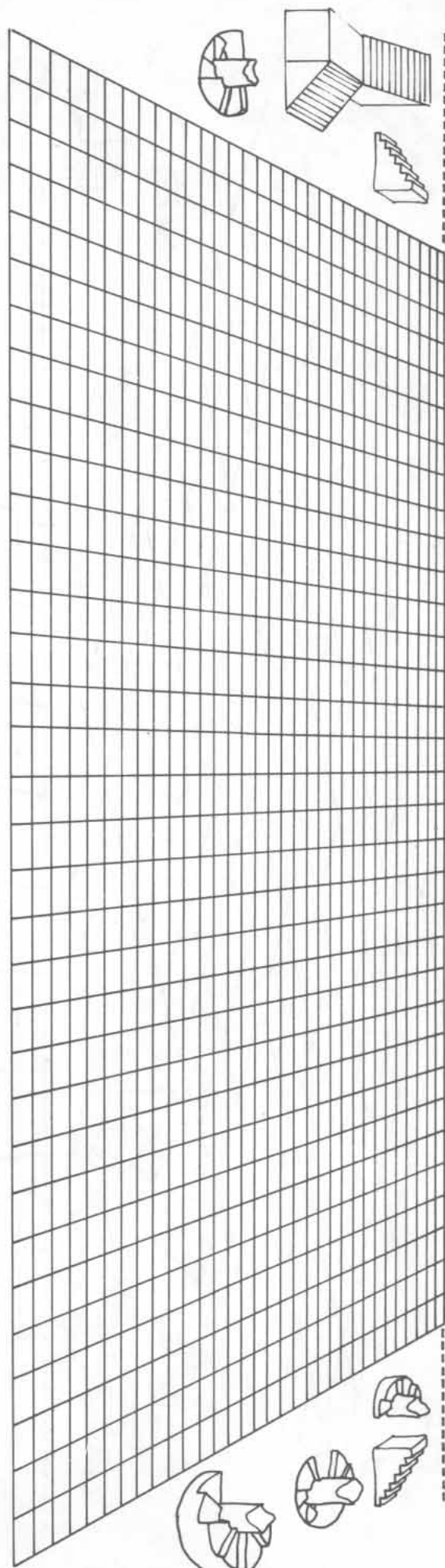
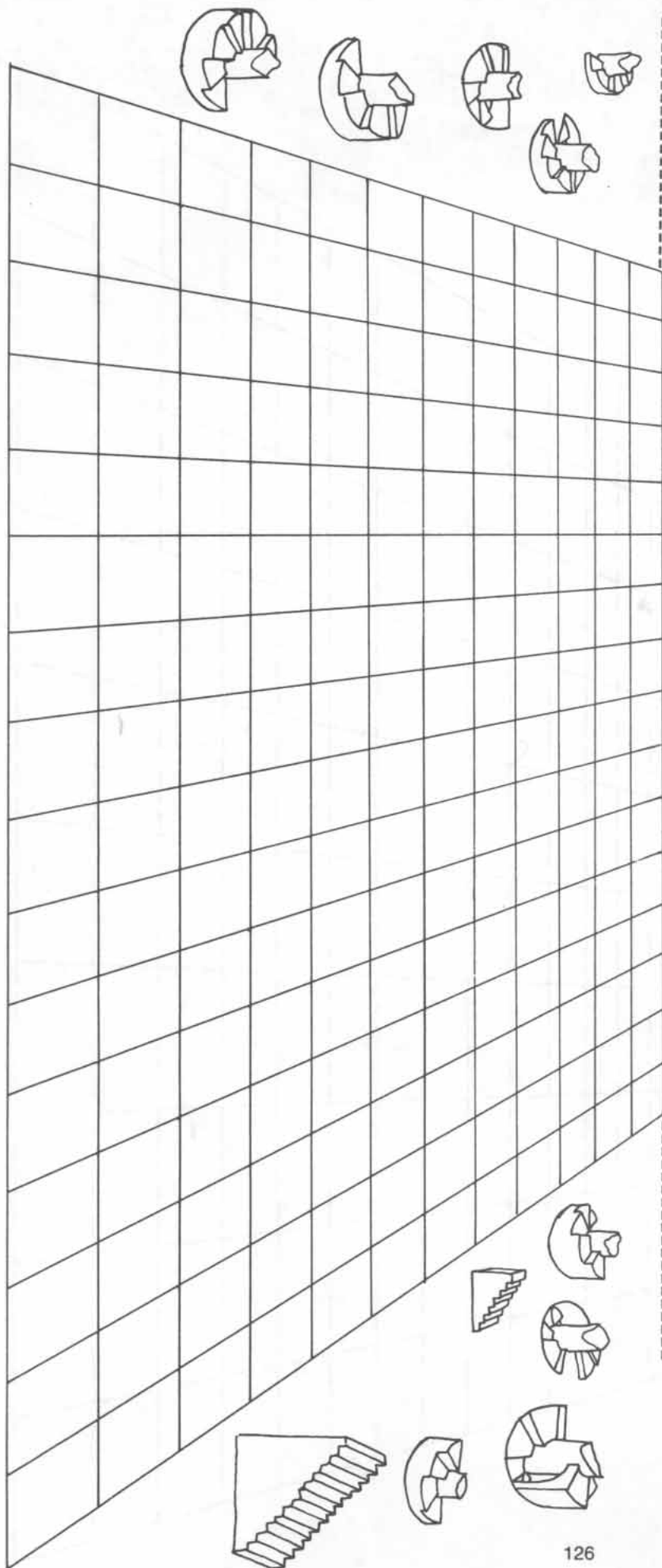
Table 34: GEMSTONE QUALITY

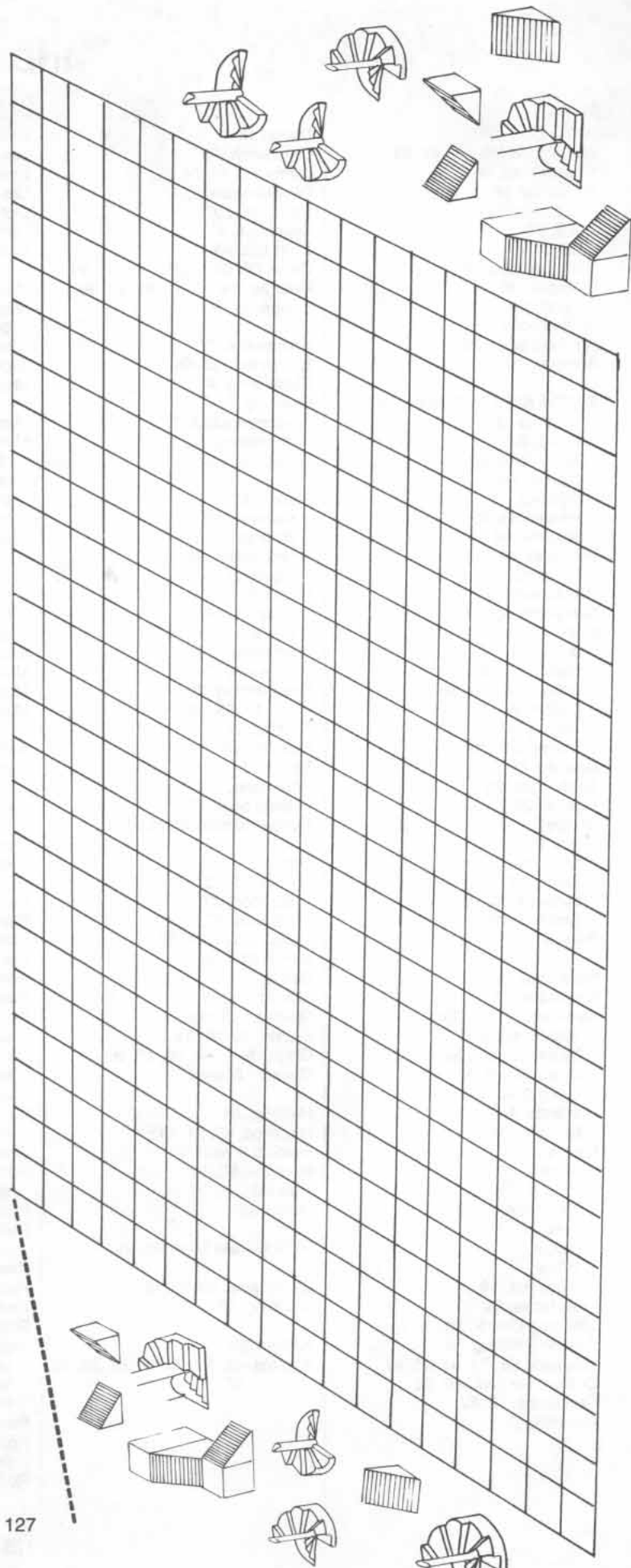
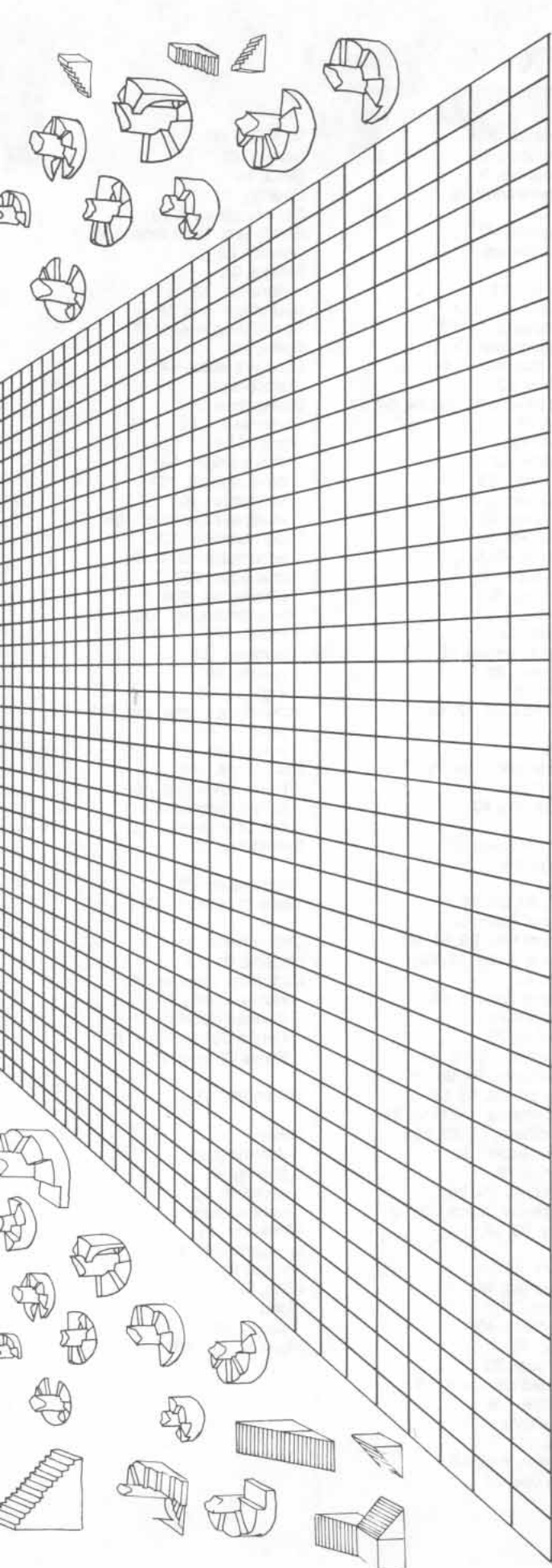
Type of Stone	# per Man-Week	Average Value
Bloodstone	2d10	20 + 10d6gp
Amber	1d10	6d100 gp
Onyx	3d10	10 + 10d6 gp
Turquoise	4d10	5d6 gp
Agate	4d10	5d6 gp
Aquamarine	1d10	10 x 5d6 gp
Garnet	1d10	100 x 1d4 gp
Jade	2d10	10 x 5d6 gp
Alexandrite	1d10	100 x 1d4 gp
Amethyst	1d10	100 x 1d6 gp
Topaz	2d10	100 x 1d4 gp
Jet	1d10	10 x 5d6 gp
Opal	1d10/3 •	200 x 1d6 gp
Ruby	1d10/3 •	200 x 1d8 gp
Sapphire	1d10/4 •	200 x 1d8 gp
Diamond	1d10/5 •	300 x 1d6 gp
Emerald	1d10/5	300 x 1d8 gp

* To calculate the number for these categories, roll 1d10, divide the result by 3, 4, or 5, as indicated, and round up.









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